Sigma 3000

User’s manual

Version 4.1x

IMPOSA

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Chapter 1 Introduction

Sigma 3000 is a type of display software specially designed and developed for LED display off-line control systems. This software is powerful with many function tools. Sigma 3000 can be used to make NMG files and display the contents which would need the support of a font library, or to make PMG files and display the dot matrix files which don't need the support of a font library. The software can also convert AVI/GIF files to FLW animation files. Users can use the Sigma 3000 to check or modify the parameters of the display, or use it to monitor the working status of the sign. At the same time, the Sigma 3000 is also a wonderful display file manager, which allows the users to schedule files and update their own display contents.

Users will see the following log-in interface whenever they open the software. There are two default users under the software—The Administrator (short for Admin, with the password "admin") and the User (with the password "user"). Only the Admin can update the sign parameters and change the configurations. General users are allowed just to do the normal operation, like sending message files or programming the files/pictures. But a user does not have the right to change any configuration/parameter.

In the following chapters, we will log-in as the Admin and get to know every usage of Sigma 3000.

Fig. 1.1 The log-in interface

Input User Name and the password, and click OK. The following interface of Sigma 3000 will show up as Fig 1.2 shows.

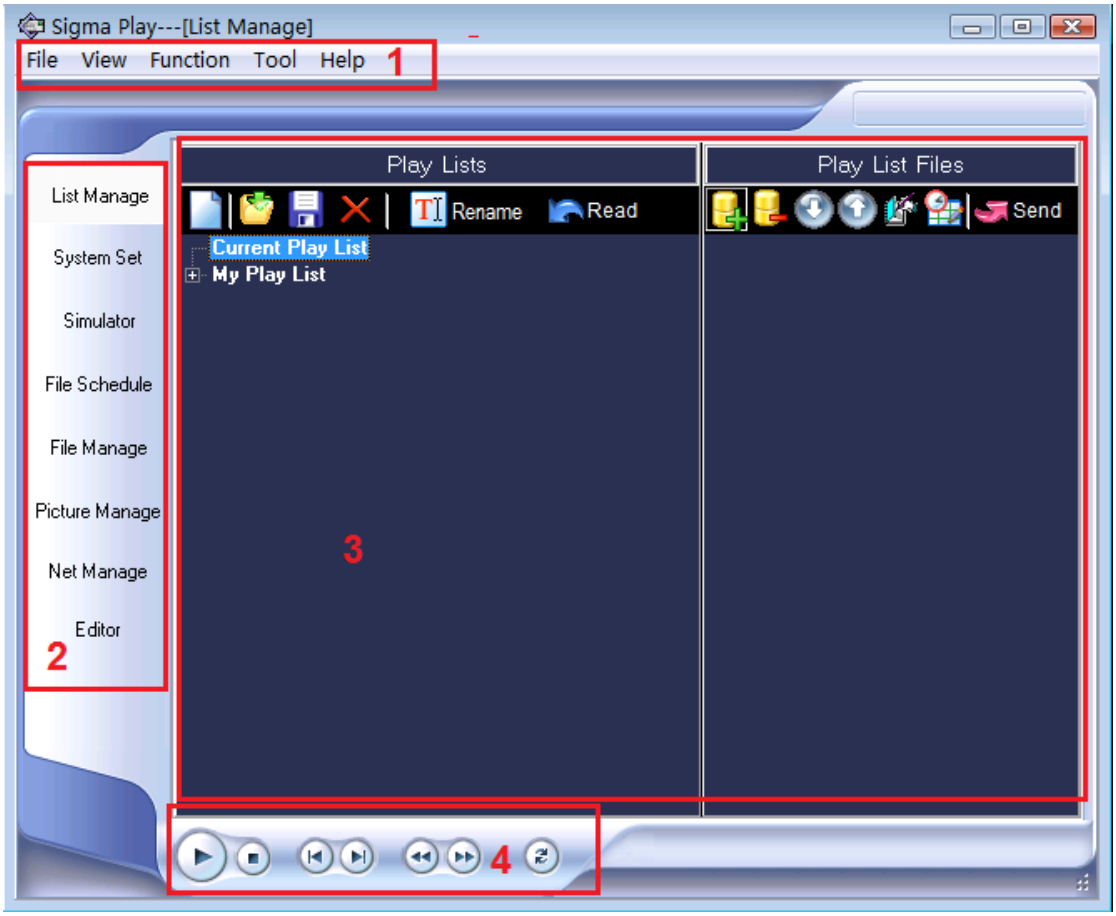


Fig. 1.2 Sigma 3000 Software Interface

As we can see from the above figure, there are 4 main parts that constitute Sigma's interface. ① is the menu bar, where the user can find all tools and functions. ② is the panel of short-cut keys, where user can realize the setting and send all types of files.③ is the work area. ④ is the key editing area in Sigma, where all display control buttons can be found here.

In the following chapters, we will separately introduce the usage and functions of the software in Sigma; in chapter 2, we are going to talk about the Sigma Editor; in chapter 3, we will introduce True Font Editor; in Chapter 4, here comes the Font Manager; in chapter 5, we will know how we can use the tools in Sigma; and in the final chapter 6, we will tell the usage of the panel of short-cut keys and the rules to follow when using.

System platform：Windows 95, Windows 98, Windows 2000, Windows XP and Vista
System ：CPU 500MHz, Memory 64M

Chapter 2 Sigma Editor

Sigma Editor, which has an independent version number, is professional and powerful software that aims at editing and programming display files. Users can use the Sigma Editor to send files to the LED sign after editing, or preview the files in the simulator. With the help of the Sigma Editor, users can insert pictures to the sign, or make the picture to be the background of other files. What is more, the functions of time count-down and count-up can also be found in Editor.

Sigma Editor consists of 5 parts: ① menu bar; ② tool bar; ③Mode bard; ④Editing bard;

⑤ Status bar.

To open Sigma Editor, users can do the following steps: Open Sigma Play. Click Tools → Edit File→ Text File.

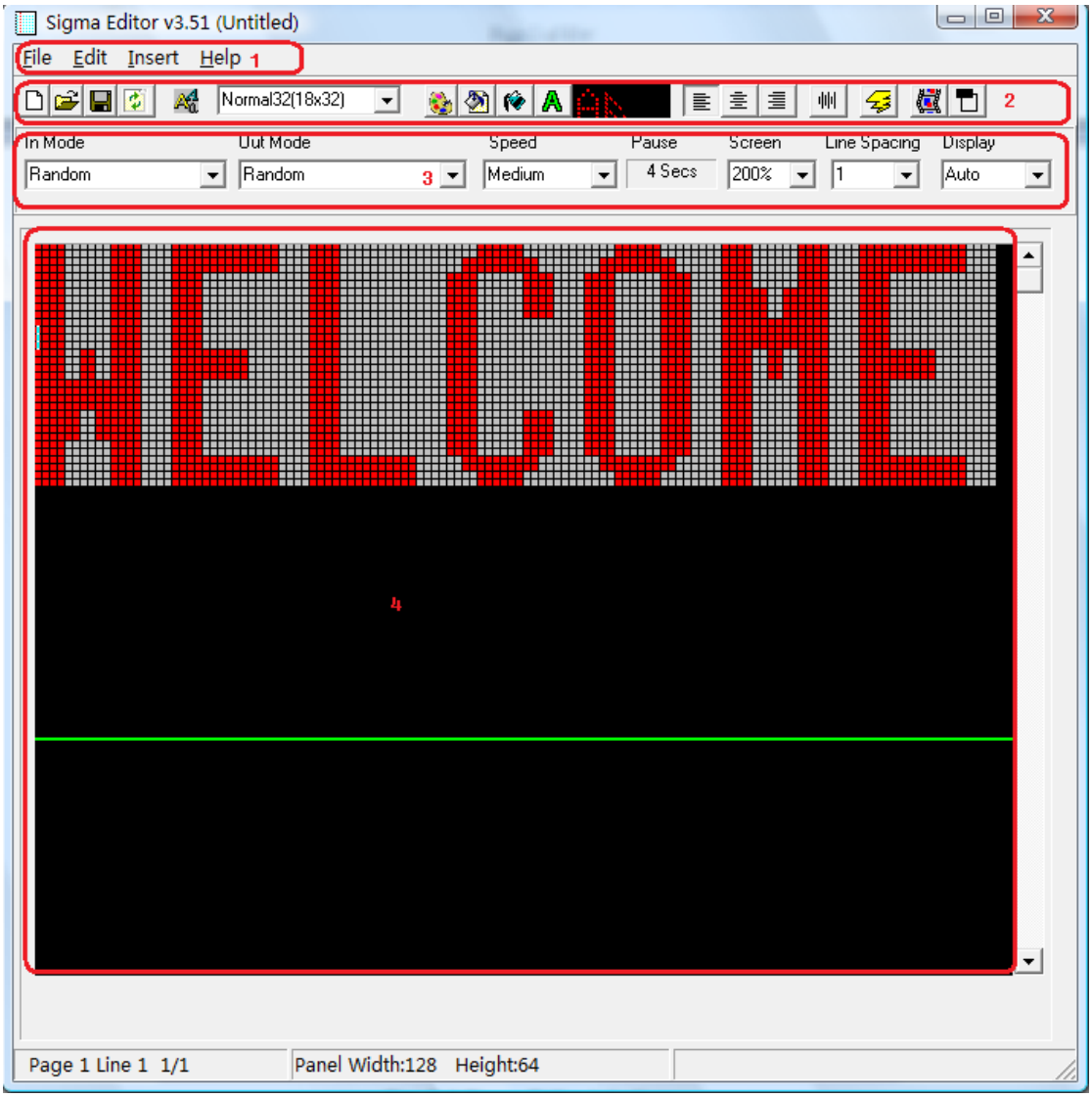


Fig. 2.1 Sigma Editor Interface

2.1 Menu Bar

2.1.1 File Menu

As Fig 2.2 shows, there are 8 items under the Menu File.

New: Open a new file;

Open: Open an NMG file;

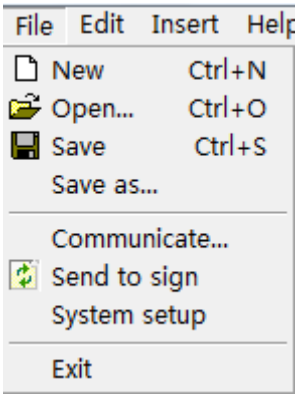
Save: Save the file;

Save as: Save the file under the name…;

Communicate: The setup information of communicating between the computer and the sign;

Send to sign: Send the edited files to the sign;

Exit: Exit Sigma Editor.



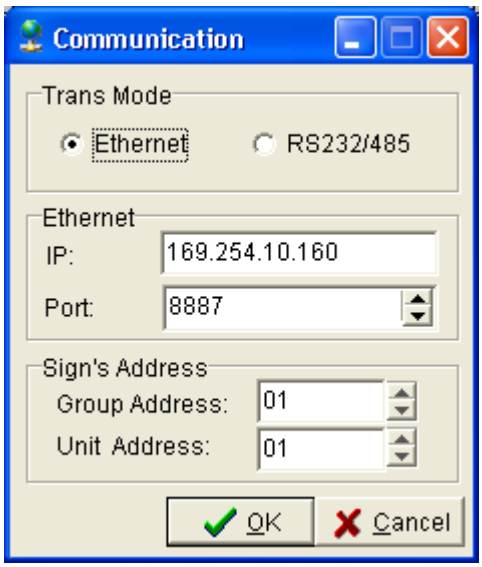


Fig. 2.2 File Menu Fig. 2.3 Communication Setting

As is seen from Fig 2.3, the communication interface tells us the following information: current Trans Mode is Ethernet, IP address 169.254.10.160, Port 8887. Group address: 01. Unite address: 01. (Note: we will refer to the Group Address and the Unite Address as GGUU in the following chapters. E.g.: 0102 means Group address 01, Unite Address 02)

Here we need to know what Port, Group address and Unit Address are.

Now let's get to know what Port is and what port is for first.

What is port?

We can say it in a simple way. Port is the pathway that enables the computer to communicate with the outside world. Without port, the computer will be both deaf and mute. Under the Internet language, Port has several meanings. It can refer to the port of HUB, switchboard or router, like the RJ 45 COM PORT, SERIAL COM PORT. When we are talking about the PORT here, we are not talking about its ordinary physical meaning; we are talking about its logical meaning. Here Port refers to the port in the TCP/IP protocol.

Then what is Port referring to under the TCP/ IP protocol?

Let's say, we take the IP address as a house, then Port is the door of the house. Usually, a real house can have no more than 10 doors, but for the IP address house, it can have 65536 doors. That is 65536 ports. Generally, we will mark these ports by the port serial numbers, ranging from 0~65536.

What is port for?

As we know, a host computer can provide us many services—Web service, FTP, SMTP etc. All those services can be realized though one IP address. Then how can the host computer distinguish these different services? Apparently, using one IP address only is impossible to realize so many services, because IP address and these services is not a biunique relationship. In fact, the host computer distinguishes these services by "IP address + Port serial number".

As it is noticed to all of us, the Ports are not counterpart. For example, a user is visiting a WWW service as a client computer. WWW service is using Port "80" to communicate

with the user's computer though Port "3457", as Fig 2.4 shows. That is to say, WWW service does not need to communicate with Port "80" in the user's computer.

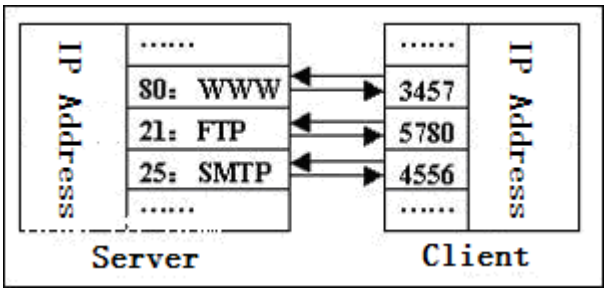


Fig. 2.4

Under the definition of counterpart protocol type, there are two types of Ports: TCP Port and UDP Port. These two types of Ports are mutually independent, because the protocols of TCP and UDP are separate. These two types of Ports do not have conflicts. Either TCP or UDP has 235 Ports.

How do the Ports allocate?

Same as the IP address, we do not use Port randomly. When we allocate them, we are following certain rules. There are several types of Ports according to classification standard. Here would not explain all of the classifications in detail but the Well Known Ports and the Dynamic Ports.

1. Well Known Ports

As the terms explains, Well Known Ports refer to the Ports that are known to all of us, ranging from 0~1023. For example, when we type www.cce.com.ce in the address bar of IE, we do not need to point out the Port series number. Usually, the default Port of WWW service is "80".

The web service can use other Ports to provide the service. If it is not the default Port series number that is used, users should input the appointed Port series number in IE' address bar. That is to say, users should add a COLON ":" (Semi-angel) + Port series number in the end of the address bar. Here is an example; we will use "8080" as the port of WWW service. In this case, we need to input "www.gonetn8.com gonet8.com:8080".

Please note that some of the Ports are fixed under certain protocols. They are not allowed to be changed manually. For example, Port 139 is fixed for the communication between NetBIOS and TCP/IP.

2. Dynamic Ports

Dynamic Ports range from 1024~65535. Those Dynamic Ports are not fixed for any certain service. They are dynamically allocated. Dynamic allocation means those ports are temporary applied from the host computer. Let's say, now there is a system program or application program that is performing the network communication. Under such circumstance, the program will apply a Port from the host computer. Then the host computer allocates one Port to the program, and once the program is shutdown, the Port will be released.

Now we can have a general idea of what Port is and what Port is for. Here Fig 2.5 shows how the Ports are used in an LED sign.

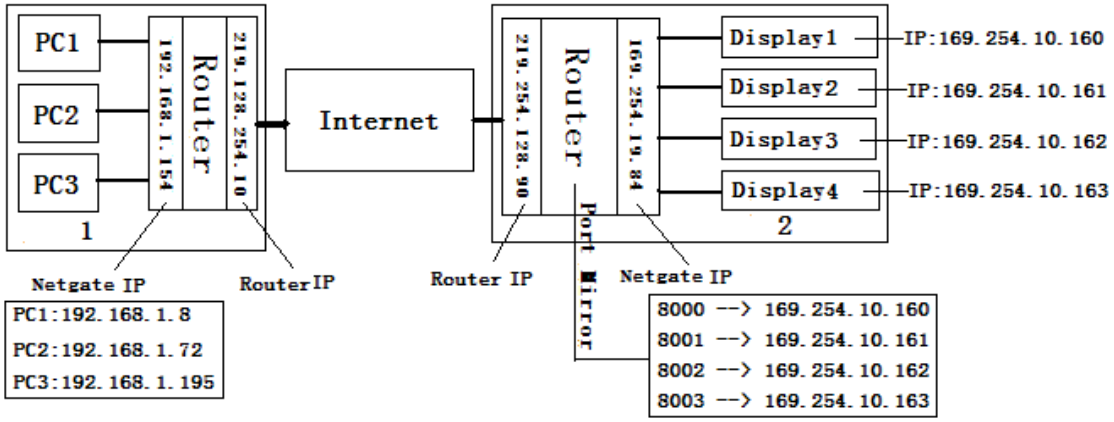


Fig. 2.5 Drawing of the Port interface

As we can read from Fig 2.5, in inner-Net 2, 219.128.254.98 is the IP address of the router. 169.254.19.84 is the IP address of the gateway. From the figure, we can see that in Inner-Net 2, there are 4 dynamic ports –8000~8003, corresponding to the related IP: 169.254.10.160～169.254.10.163 .

How can we control Sign 1 though PC1 in Inner-Net 1? Apparently, if we just input 169.254.10.160 to the interface of Fig 2.3, we will not be able to program Sign 1 by PC 1. Under such circumstance, we need to introduce an outside net in to connect the two inner-nets.

So in Fig. 2.3, instead of inputting the IP address 169.254.10.160, we should input the IP address of the router in Inner-Net 2----19.128.254.98, with the Port 8000 if we would like to program Sign 1. If it is Sign 2 that we want, then we should input Port 8001. And so on for Sign 3 and sign 4. Only the IP address of the router in Inner-Net 2 is unchanged.

Here Fig.2.6 shows the setting of communicating Sign A with PC 1.

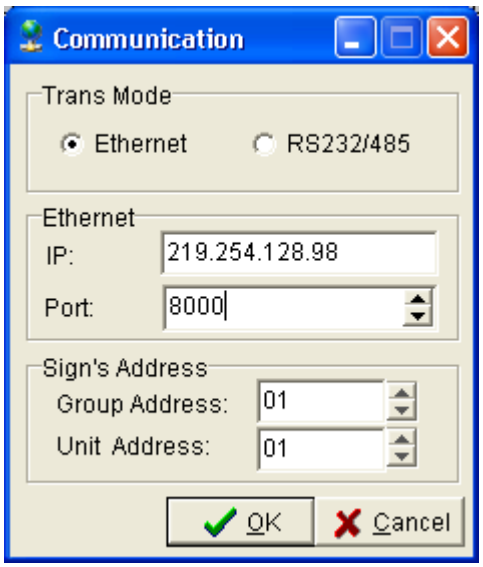


Fig. 2.6 Communication through an outside net

Now let's get to know more about Group Address and Unit Address. As we explained in the last chapter before, GG stands for Group Address, while UU stands for Unite Address. With the help of GGUU, we can communicate with 99x99 LED signs.

Please note that 0000 means the broadcast address. If we are searching for one certain

LED sign, we can use the broadcast address to communicate with other GGUU.
GGUU is meaningful to our management of the LED signs. For example, we can set up the signs in the workshop as a group. In this case, all the signs in the workshop are with the GG “01”. Every LED sign is a separate unit, with the UU ranging from 01~99. What is more, we can set all the signs in the office as group 2, with GG 02, and different UU to communicate with.
Under such circumstance, we can manage all the signs according to different groups. Even with the same IP address, we can still tell the signs apart from the different GGUU.
The other Trans Mode is serial port. As shown in Fig 2.7, Serial Port refers to COM 1 in the computer, with GGUU 0101.
Sigma Play will check the Baud rate of the sign if Serial Port is used for the 1st time. The communicating interface will disappear once the Serial Port receives the data back from the sign, which means communication succeeds. Otherwise the software will tell that communication failed.

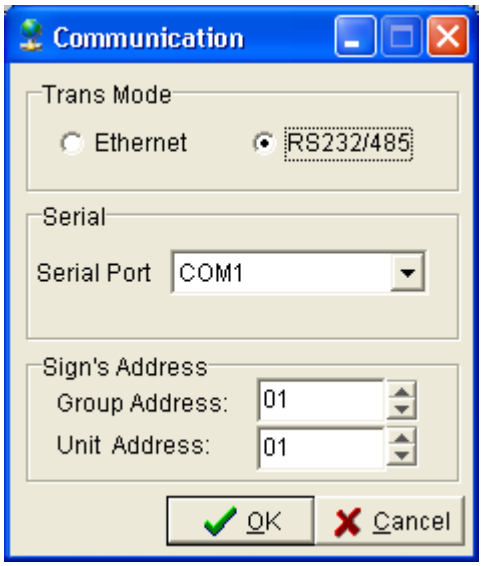


Fig. 2.7 Serial Port Interface

2.1.2 Edit Menu

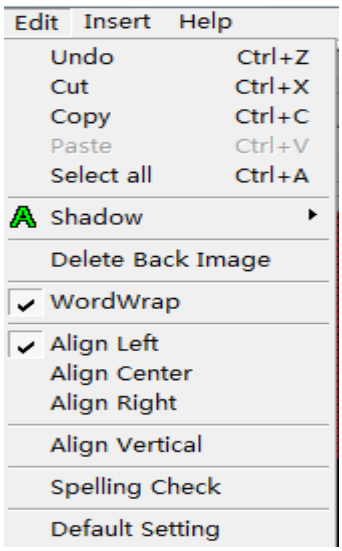


Fig. 2.8 Edit Menu

As show in Fig 2.8, most of the function is the same as the tool bar.
Undo: Cancel the last operation
Cut: Cut chosen text or graphics in the editing area
Copy: Copy the chosen text or graphics in the editing area
Paste: Paste the chosen text or graphics to the editing area
shadow：You can add a box around a character or some characters, but you cannot see the box unless in simulator or display mode. The display effect is as in A1：

Select All: Choose all the content in the editing area
Delete Back Image: Delete the background picture in the editing file.
Word Wrap: Automatic line-change

Align Left: Text align left horizontally
Align Center: Text align center horizontally
Align right: Text align right horizontally
Align Vertical: Text align center vertically
Spell Check: Checking the spelling of words
Default setting: The default editing mode in Sigma Editor

Fig.A1

The following Fig 2.9 shows the interface of default setting. We can see that there are 12 default settings in the figure. Press OK, Sigma Editor will follow those default settings when a new file is opened for editing.

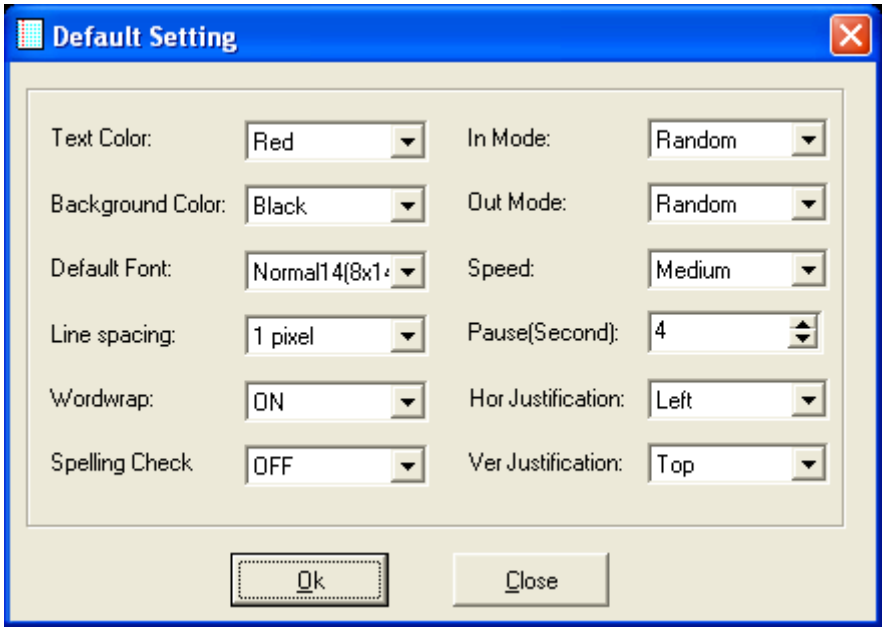


Fig. 2.9 Default Display Setting Interface

2.1.3 Insert Menu

From Fig 2.10, we can see that there are 6 options under Insert Menu. Here we will introduce the functions of these 6 options.

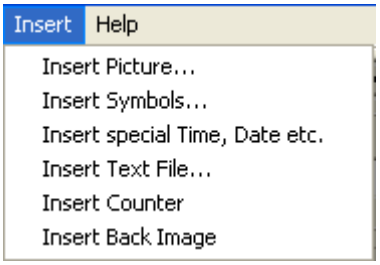


Fig. 2.10 Insert

Insert Picture: Users can insert the picture (BMP format) to the editing area, as Fig 2.11 shows. Choose one BMP file, click OPEN. The BMP file will be added to the editing area. Users can send the file to the sign.

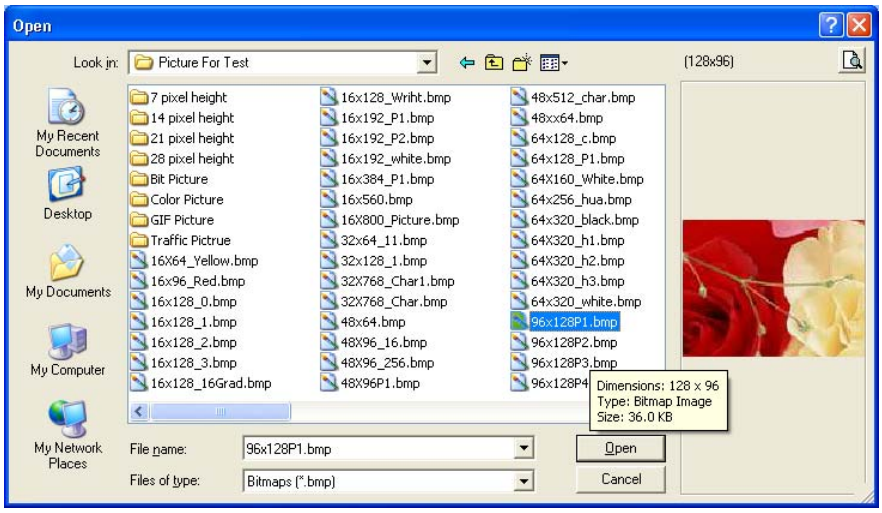


Fig. 2.11 Insert a picture

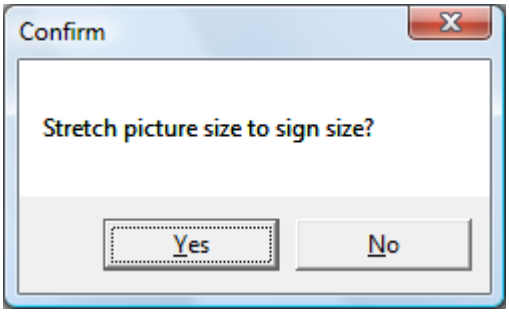


Fig. 2.12A

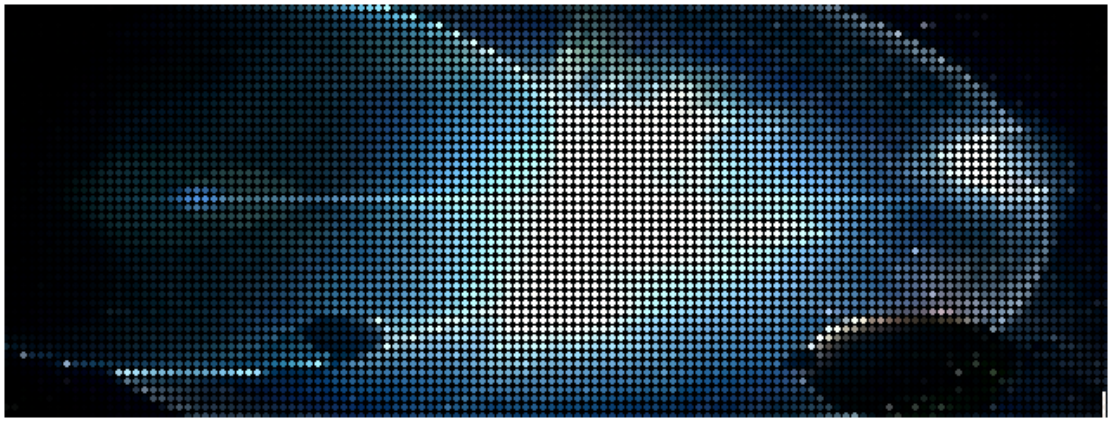


Fig. 2.12B Picture in the Editing area

As can be seen in Figure 2.11, if the inserted picture is larger in size than the size of the LED screen, you will see a prompt asking you whether you want to stretch the picture size to the LED screen size. If you press Yes, you will see the picture in Figure2.12B.

Insert Symbols: This function helps the user to insert some special symbols whenever they need. Sometime we find that it is not that convenient to insert some special symbols, because they can't be found on the keyboard. That is why we need the function of "Insert Symbols". As shown in Fig 2.13, we can see the special symbols and characters of font Normal130. The symbols and the characters vary with different types of fonts.

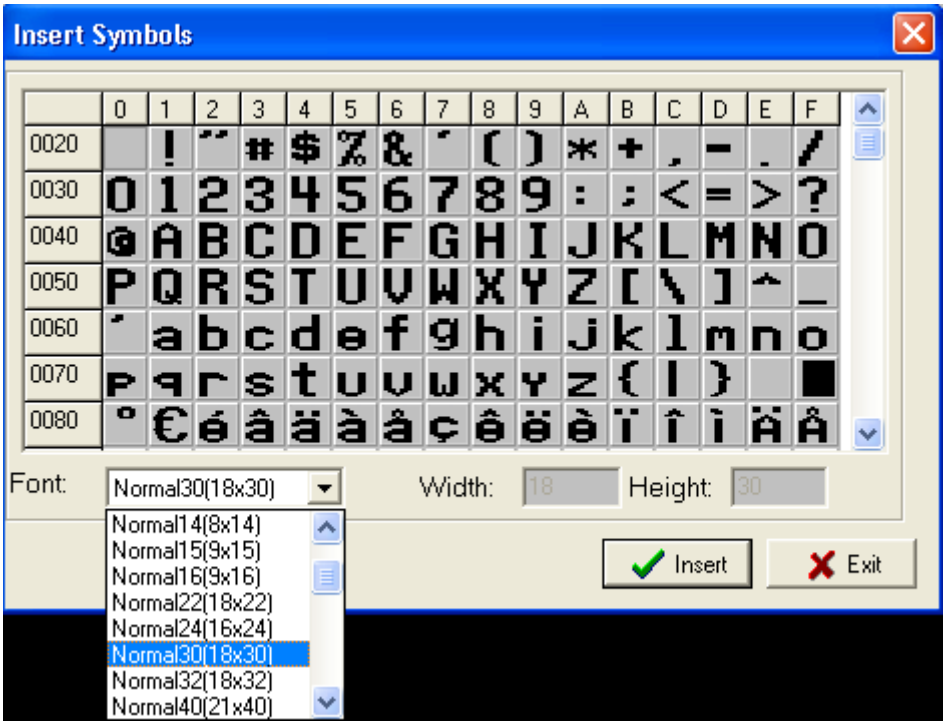


Fig. 2.13 Insert Symbols Interface

Insert Special Time, Date, etc.

With this function, users are able to insert time of different world time zones, temperature, date, week, and humidity to the sign. Before inserting any time and date, we should correct the time of the sign with the computer's first, otherwise we might think that there were some problem with the time. Before we insert humidity and temperature, we also need to be sure that we already have the humidity and temperature sensor. Otherwise, humidity and temperature will be shown as NA on the sign.

Special note: Even with the temperature and humidity sensor, when we insert temp & humidity, it would be shown as NA in the editing area, but this would not affect the information shown on the sign.

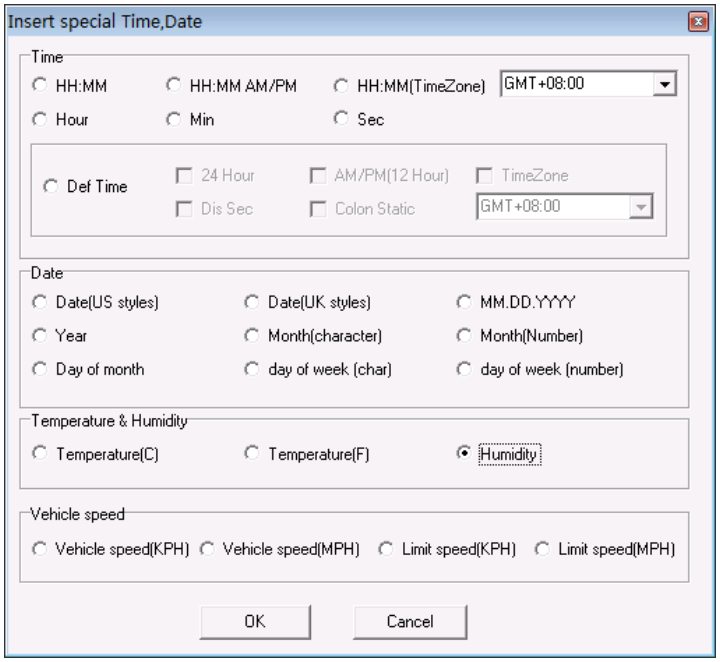


Fig. 2.14 Interface of inserting Time, date

Insert Text File: This function enables the user to insert the txt. File directly without inputting any message again to the editing area. Sigma Editor will paste the txt. File directly to the editing area once the file is chosen. This function accelerates the programming speed and reduces the inconvenience during programming.
As shown in Fig 2.15, click Open to choose the txt. File that we want.

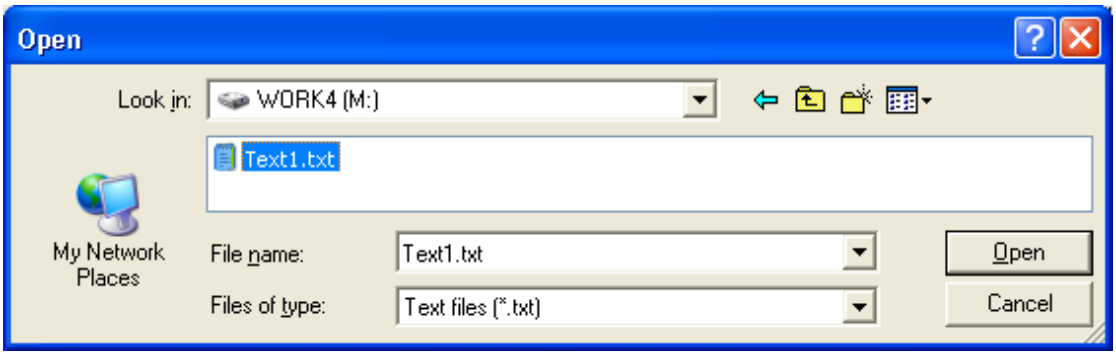


Fig. 2.15 Interface of inserting txt. File

Insert Counter: With this function, users will be able to insert a counter, either down-counter or up-counter. From Fig 2.16, we can see that in the counter interface, we can count either time or objects. The coefficient of correlation rang from 0.1~999. We can notice that there are two count types—counting up and counting down. We can also choose to count by days, hours, or by seconds. Or we can choose to input %d(%of days), %h(% of hours), %s (% of seconds) directly to the editing area.

What is coefficient of correlation?

For example, we set the coefficient as 100. If we would like to count down for 2 days time, the coefficient will multiply the number, which makes 200. Only till the days remains 1 day left then it makes the outcome 100.

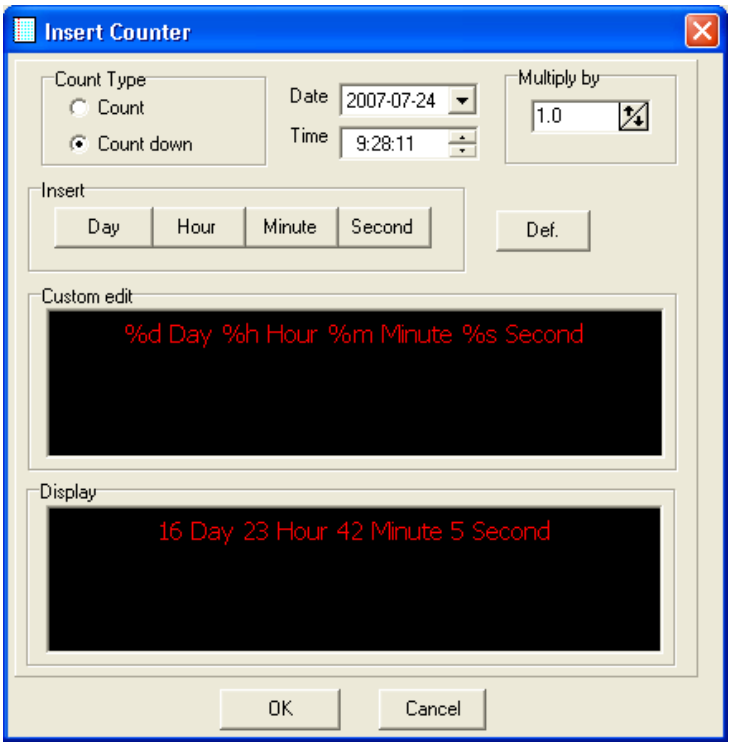


Fig. 2.16 Insert counter interface

Insert Back Image

With this function, users can find it convenient to edit and program the file with both text and graphic. With this function, user is able to program the same content to every frame, or set different background picture in each frame. Or users can even edit some text suspending above the picture.

Here is an example, as shown in Fig 2.17. We now would like to choose one picture (BMP file) as the background. We will see an interface asking us if we would like to set for “All frame”, “Current frame” or “Select frame”. After we select the function that we want, we can add some text to the back ground.

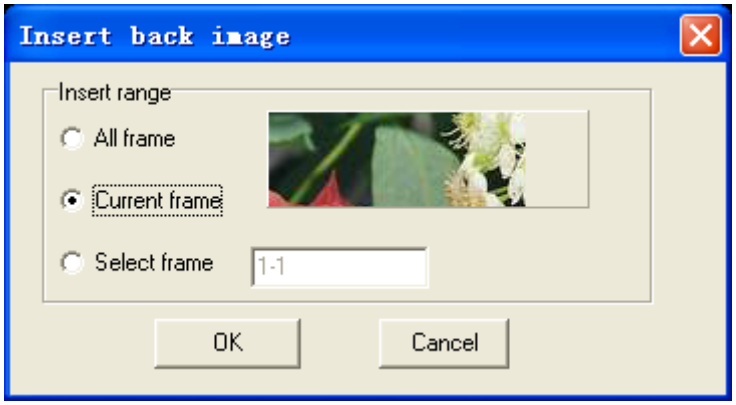


Fig. 2.17 Insert Back Image Interface

From Fig 2.18, we can see the effect of a file which is added with some text.

Special note: Only one display mode is available for the test that insert.

Fig. 2.18 Back-ground picture with text

2.1.4 Help Menu

In the Help Menu, we can find the version number of Sigma Editor, as Fig 2.19 shows.

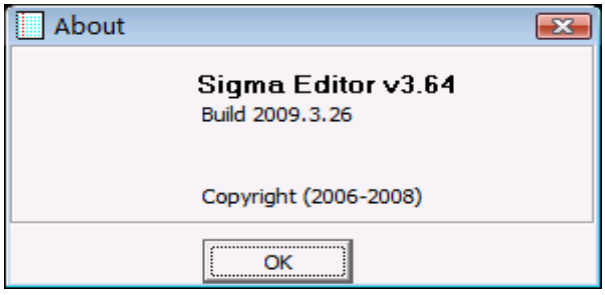


Fig. 2.19 About Sigma Editor

2.2 Tool Bar

There are several types of tools in Tool Bar: File tool, Color tool, Align tool and other tool. Here we are going to introduce the usage of these several types of tools.

File Tools

: Open a new NMG file；

: Open the NMG files；

: Save the file；

Color Tools

: Palette of the font color；

: Back-ground palette of fonts；

: Back-ground palette of frame；

： Shadow；

Align Tools

: Horizontal left align；

: Horizontal center align；

: Horizontal right align；

: Vertical center align；

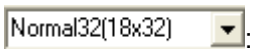
Other Tools

: Short cut key for sending files；

: Set flashing feature for a certain character or picture；

: Simulated display, as Fig 2.20 shows；

: Insert a title, as Fig 2.21 shows；



: choose the font type.

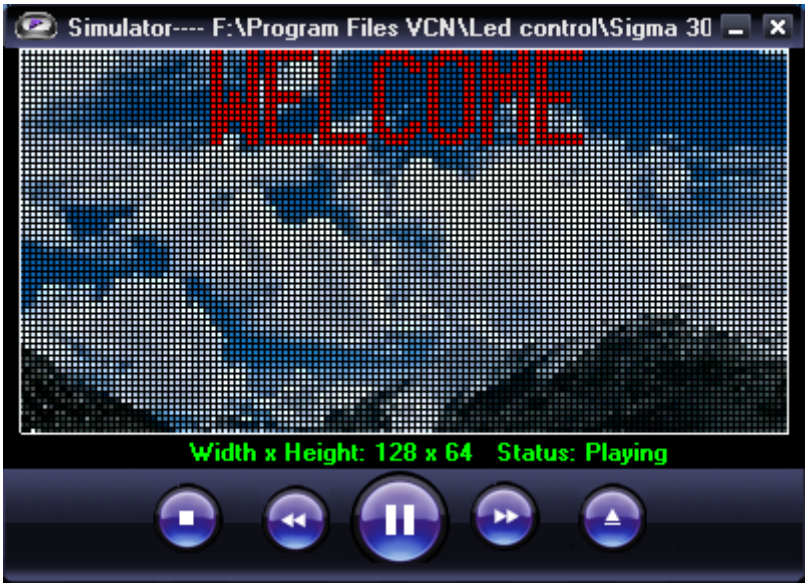


Fig. 2.20 Simulated display

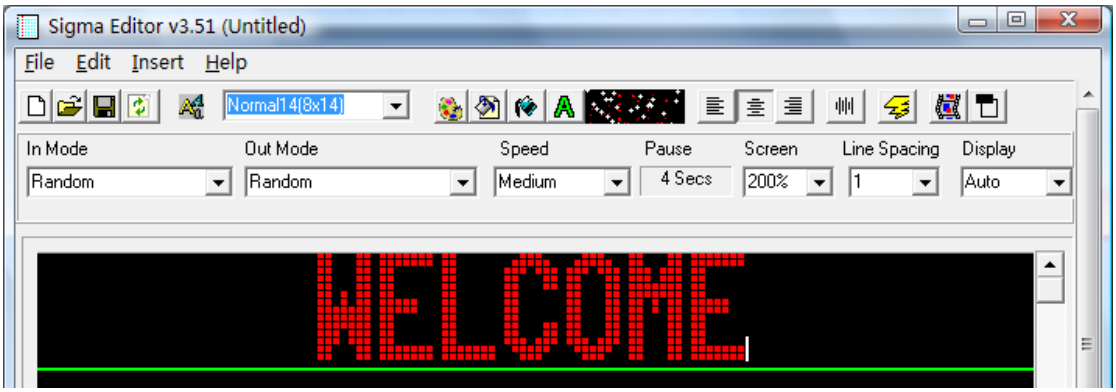


Fig. 2.21 Insert a title

2.3 Mode Bar

Fig 2.22 shows the Mode Selecting Bar in the Editor

Fig. 2.22 Mode Bar

In mode: The display mode of a file when it goes into the sign

Out mode: The display mode of a file when it goes out of the sign.

Speed: Display speed of each frame

Pause: Pause/hold time of each frame. Fig 2.23 shows the interface of Set Hold time. We can see that the pause time of the in-mode can also be included. That is the pause time = in mode time + out mode time.

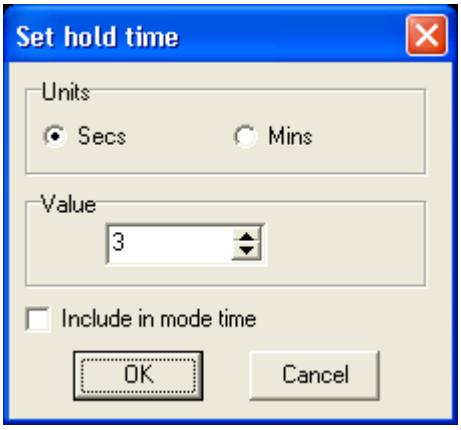


Fig. 2.23 Set hold time

Zooming: If the sign is too large, we can zoom the editing area in order to make the program more convenient.

Line Space: Users can set the space of between 2 lines, with the Max value 9 and Min value 0. The unit of the line space is by pixel.

Display mode: Only Jump out and chasing mode is available.

2.4 Editing Area

The Editing Area provides the users a platform to edit the files and display the message. Users can perform the operation like inserting picture, time, temperature, humidity, text files, counter down and counter up etc. All files that saved will be with the suffix name of NMG.

If we click the right key, we will see a Right-key menu, as it is shown in Fig 2.24. We have introduced these functions in the previous parts. This menu makes the program more convenient and quicker.

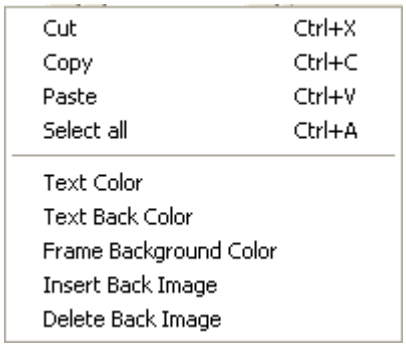
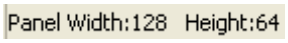


Fig. 2.24 Shortcut Menu

2.5 Status Bar

Status Bar indicates the current information of the current editing file. For example:

means the current editing page and the position of the cursor.



indicates that the current editing file can be used for the sign with 64 pixels height and 128 pixels wide.

Chapter 3 True Font Editor

True Font Editor is a kind of editing tool for editing dot matrix files. The most obvious advantage is that it can edit any font in the computer system and show them on the LED display without downloading font list onto the display.

Fig 3.1 shows the process of opening the True Font Editor.
Choose Tool→Edit file→True Font file.

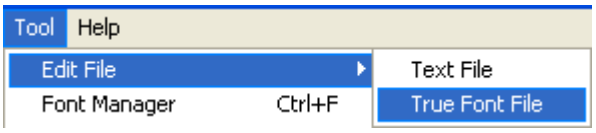


Fig 3.1 Choose dot matrix

As Fig 3.2 illustrates, True Font Editor has the same layout as Sigma Editor. 1--- Menu Bar, 2---Tool Bar, 3---Mode Bar, 4---Edit Area, and 5---Status Bar. The following is the introduction of their functions.

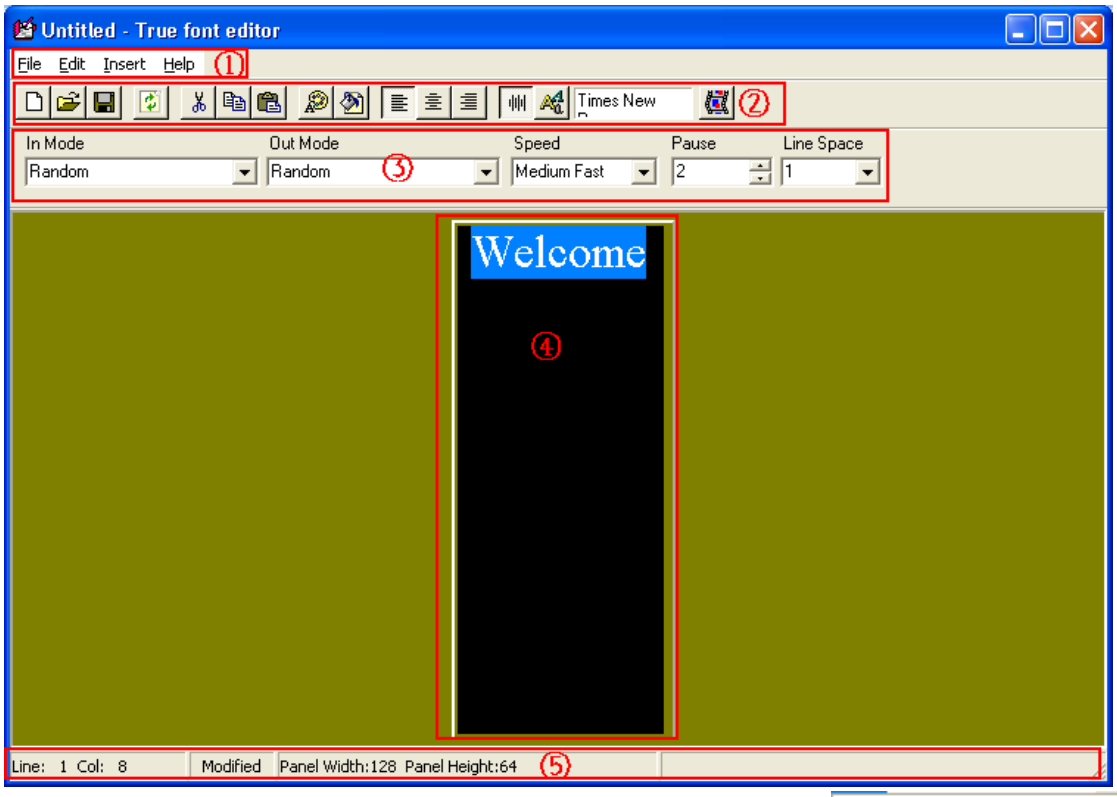


Fig. 3.2 True Font Editor Interface

3.1 Menu Bar

3.1.1 File Menu

Fig 3.3 shows the pull-down menu of File Menu, which has the same functions as Sigma Editor. Please refer to the above Sigma Editor for more information about Communicate setting and Send to sign.

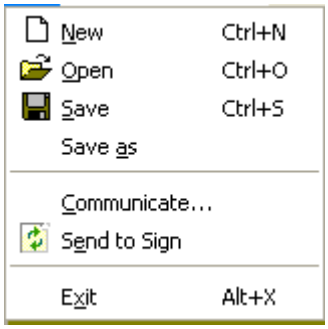
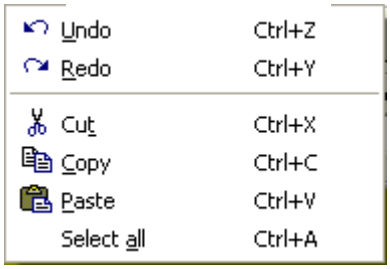


Fig. 3.3 File Menu

3.1.2 Edit Menu

Fig 3.4 is the pull-down menu of Edit Menu. Since it is simple, it is quite easy to understand.



3.1.3 Insert Menu

The Insert Menu has only one function--inserting pictures to edit area. The picture format it supports are: BMP、JPG、JPEG and ICO. You can pull the pictures randomly to change their sizes.

3.1.4 Help Menu

The Help Menu has only the version information about True Font Editor. See Fig 3.5.

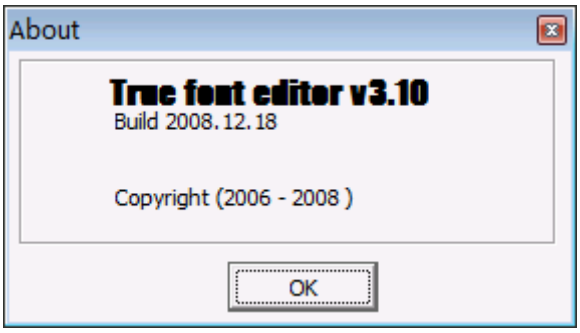


Fig. 3.5 Version information about True Font Editor

3.2 Tool Bar

Tool Bar of True Font Editor can be divided into file tool, color tool, alignment tool and other tools. All the tools in True Font Editor have almost the same function as those in Sigma Editor except that True Font Editor doesn't have frame back-ground color and the button of headline choice.

Color tools:

: Foreground colors of characters

: Background color of characters

Other tools:

: Sending button, the same as Sigma Editor

: Font choosing tool, supporting fonts in the PC system

: Simulating button, the same as Sigma Editor

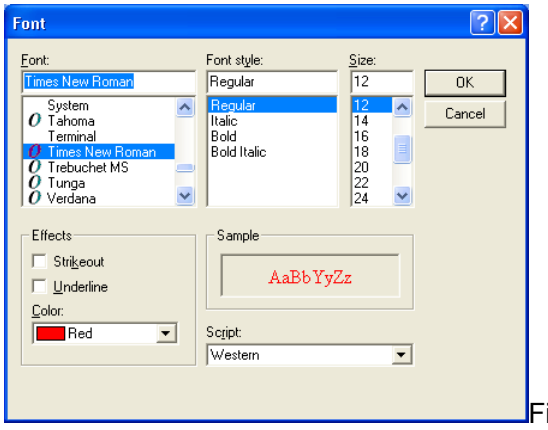


Fig 3.6 Font choosing

3.3 Mode Bar

From Fig 3.7 we can see that the setting modes and their related functions are the same as Sigma Editor's, which include in mode, out mode, speed, pause and line spacing. The only difference lies in the display time.

Fig. 3.7 Mode Bar

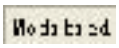
3.4 Editing Area

Different from Sigma Editor, True Font Editor doesn't regulate the boundary line to separate the editing information frame by frame. In the area, lines can be changed automatically. The same as table editing in Word file, it can enter another line to show a complete word.

If the words ***technology*** doesn't enter lines automatically, then there will come several letters following behind ***LTI LED.*** Thus, due to the automatic line changing, there will come space of each line.

3.5 Status Bar

: The location of the cursor, in which line and which column

 : In the status of editing information

: Size of panel, width: 128, height: 64.

Chapter 4 Font Manager

As Fig 4.1 shows, press Tool and then Font Manager to open the Font Manager software.

Fig 4.2 is the interface of Font Manager, which is mainly made up of five parts: 1---Menu Bar, 2---Tool Bar, 3---Font List Bar, 4---Shortcut Button, The following is their detailed functions.

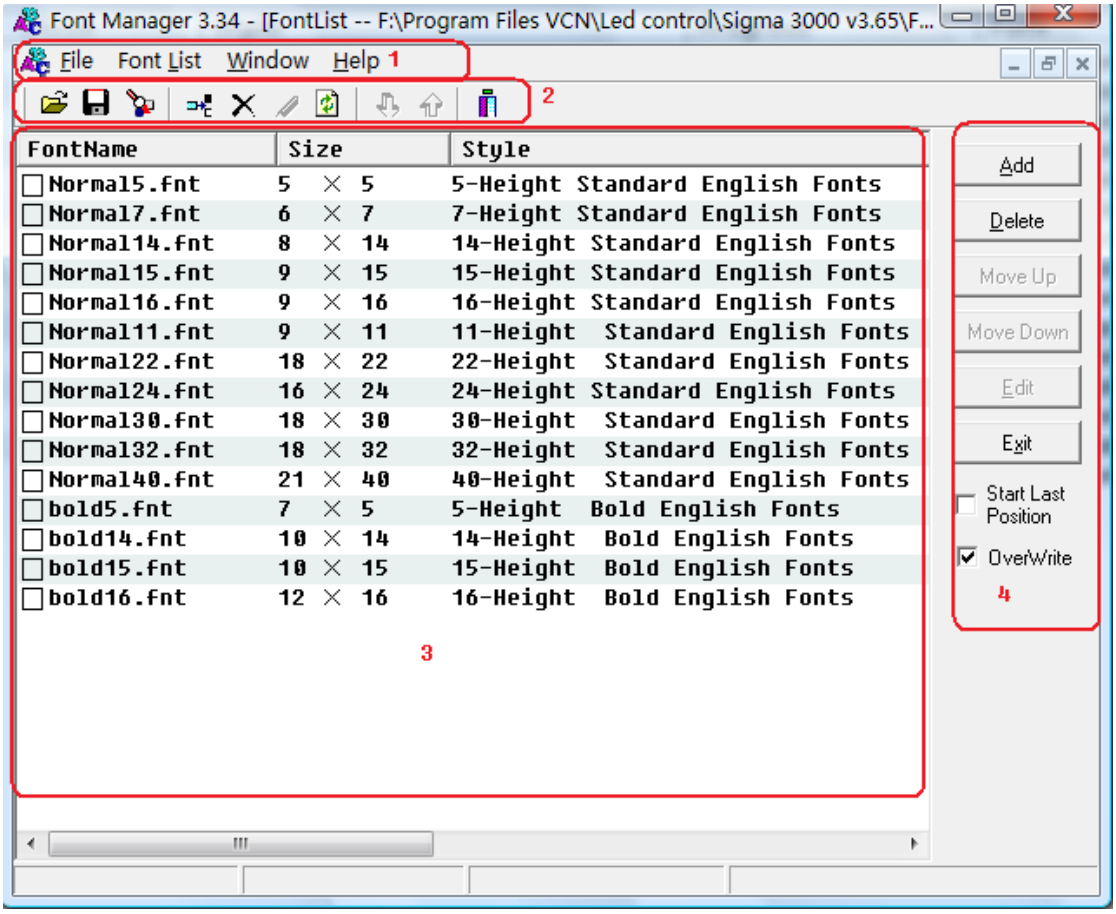

Font Manager 3.34 - [FontList -- F:\Program Files VCN\Led control\Sigma 3000 v3.65\F...
File Font List Window Help 1
2
FontName Size Style
Normal5.fnt 5 × 5 5-Height Standard English Fonts
Normal7.fnt 6 × 7 7-Height Standard English Fonts
Normal14.fnt 8 × 14 14-Height Standard English Fonts
Normal15.fnt 9 × 15 15-Height Standard English Fonts
Normal16.fnt 9 × 16 16-Height Standard English Fonts
Normal11.fnt 9 × 11 11-Height Standard English Fonts
Normal22.fnt 18 × 22 22-Height Standard English Fonts
Normal24.fnt 16 × 24 24-Height Standard English Fonts
Normal30.fnt 18 × 30 30-Height Standard English Fonts
Normal32.fnt 18 × 32 32-Height Standard English Fonts
Normal40.fnt 21 × 40 40-Height Standard English Fonts
bold5.fnt 7 × 5 5-Height Bold English Fonts
bold14.fnt 10 × 14 14-Height Bold English Fonts
bold15.fnt 10 × 15 15-Height Bold English Fonts
bold16.fnt 12 × 16 16-Height Bold English Fonts
3
Add
Delete
Move Up
Move Down
Edit
Exit
Start Last Position
OverWrite
4

Fig. 4.2 Font Manager Interface

4.1 Menu Bar

4.1.1 File Menu

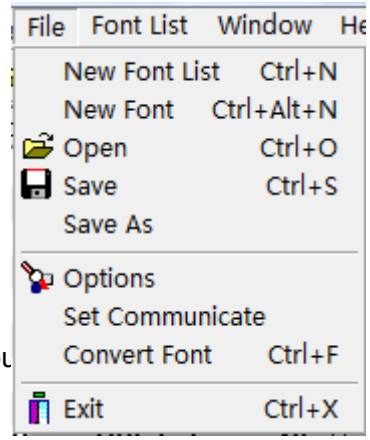


Fig 4.3 illustrates the pull-down menu of File Menu. We will focus on some special functions.

New Font: It means a customized font based on user's special need and preference. Fig 4.4 is the interface of establishing new font. Set the height and width of the font you want, and then choose the saving path, you can create your own fonts now. Suppose you want a font of 10dots height and 7 dots width, just input the related information, choose saving path, and press bu Menu OK. Fig 4.5 is the interface of customized font.

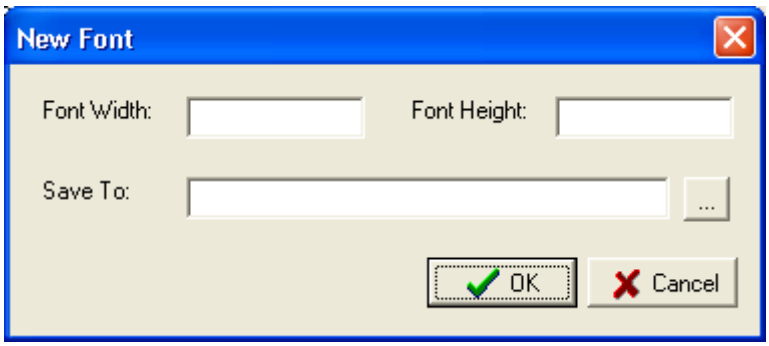


Fig 4.4 New font interface

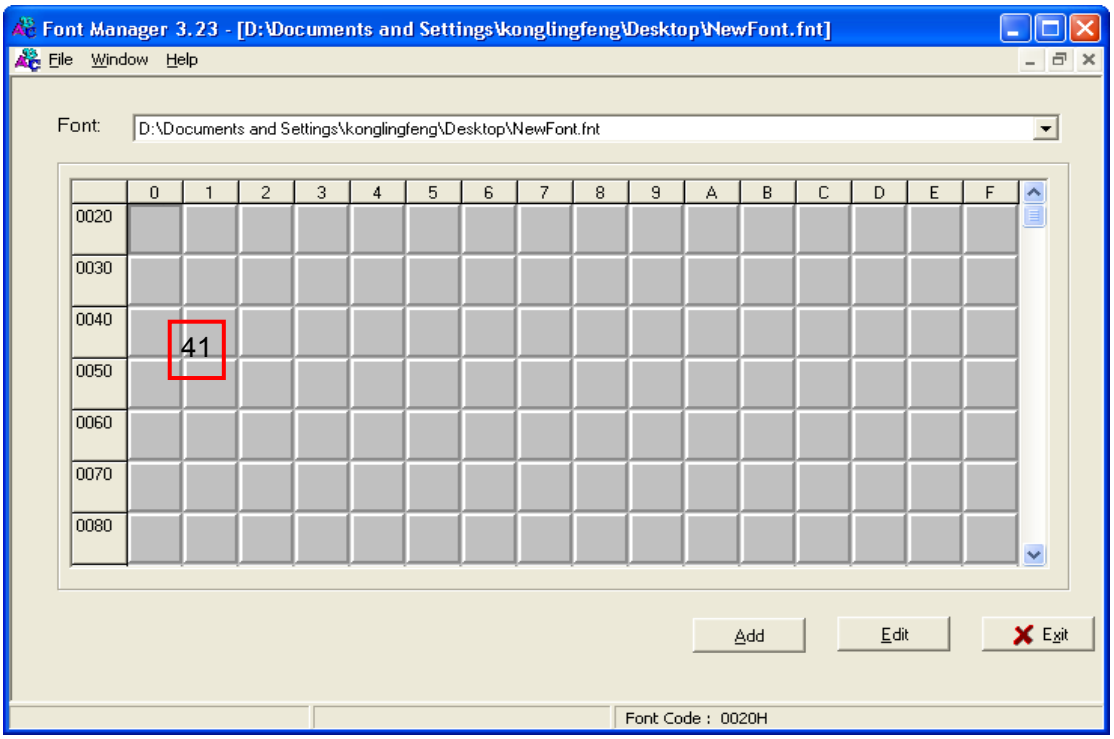


Fig 4.5 Interface of customized font

There is a ruler of line and column in Fig 4.5. Actually it is the ASCII location of each font you are creating. So the fonts should be established in accordance with ASCII principle, otherwise you won't get what you want through the input on the keyboard. In ASCII code, the big letter A is at 0041(hexadecimal), so we can make a big letter A just at this place. Double click the place of 0041, there will appear an editing interface like Fig 4.6.

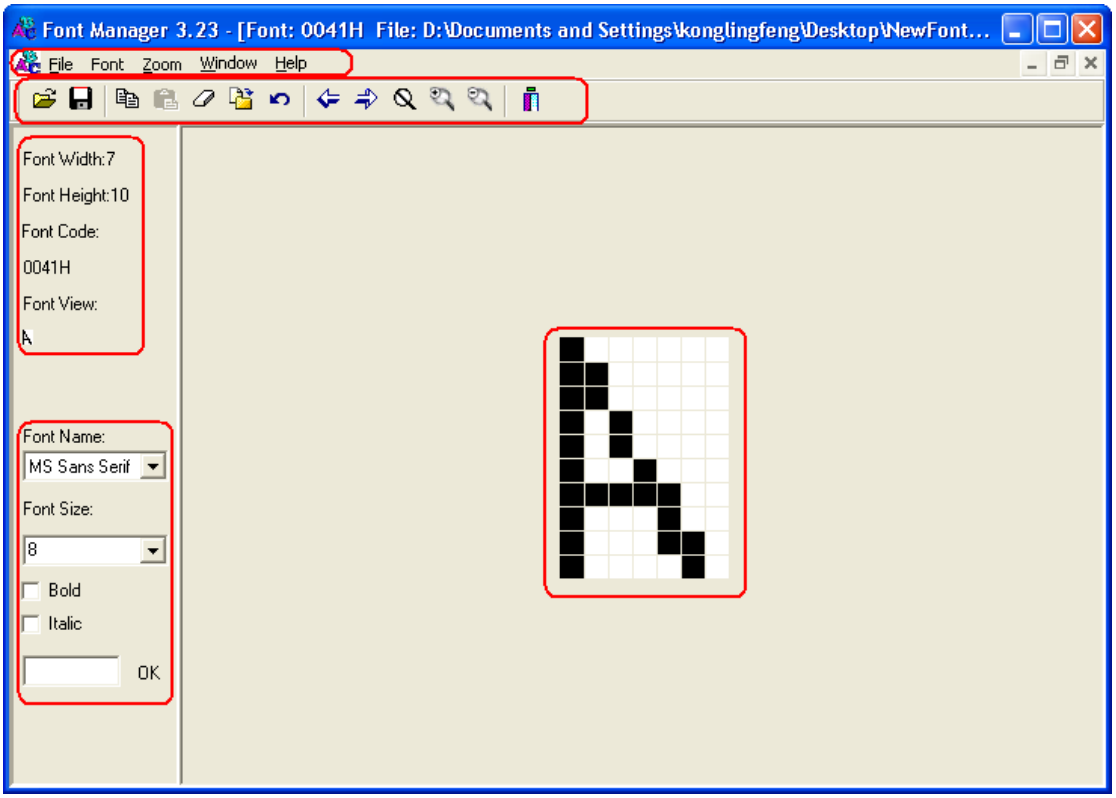


Fig 4.6 Font editing interface

From Fig 4.6 we learn that the editing area is made up of 5 parts, 1--- Menu Bar, 2---Tool Bar, 3---Character Information, 4---System Font, 5---Font Editing Area.

Notes:

Menu Bar, Tool Bar are bonded together with the Font Manager, only partial functions belong to this edit interface.

Area 3 shows the character information: font—10*7, ASCII code—0041H (H represents Hexadecimal)

System font means users can create any fonts on the base of the current fonts in the computer system. Press button OK after choosing a kind of font and you can download the system font into the font editing area.

Font editing area: Click the left key of the mouse, the block will turn to black, and click the right key, the block turns to white.

After editing your own font, you should save it and then exit.

Font Style: It is the tool to examine a certain font style in the font list. Fig 4.7 discloses the way.

First choose a kind of font, Normal15, for example, and then choose the font style. Via the following figure, we know that the font style is 15*8 Standard English Fonts. The moment font style changes, the nature of the font varies. So we only recommend checking here, no modification.

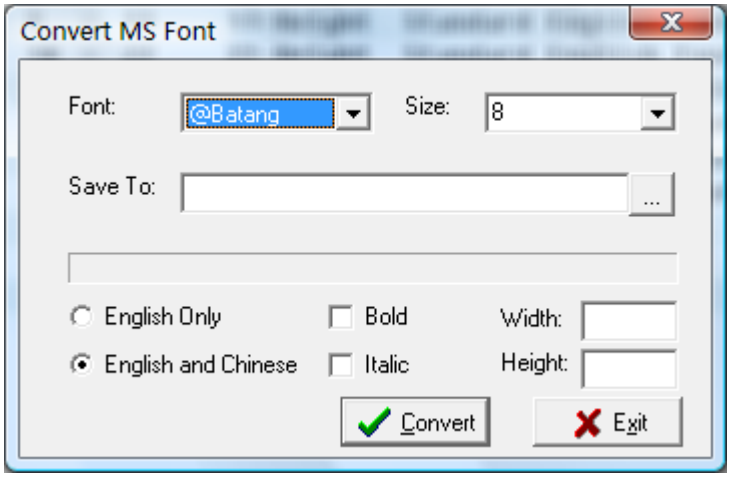
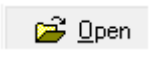


Fig 4.7 Font Style

For example：

Suppose we want to switch to Arial Font 16. We will open the font conversion dialogue as shown in Fig 4.7. We select a font and size, and then a path to save the file. Then we select a language. Finally, we press the button

and we will see the progress bar changing, and the button

changes to 

. The conversion is completed and you will see Figure 4.8, with the font file name being Arial16.FNT. You can add it to the font library and send it to the LED screen.

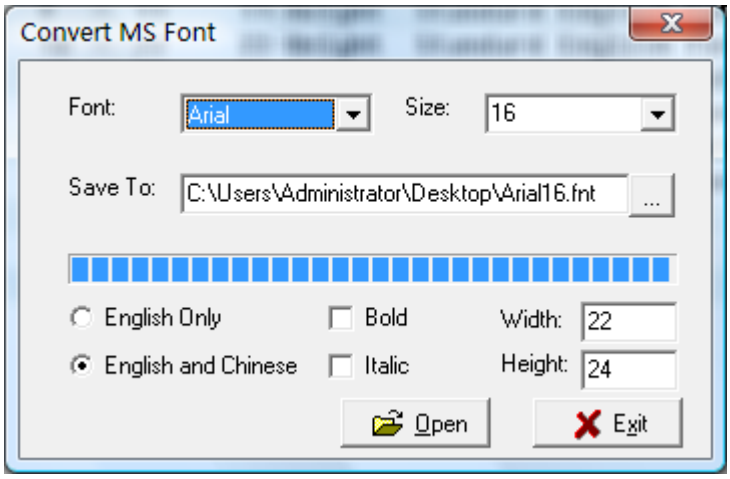


Figure 4.8 Conversion completed

Communication setting: Consult the counterpart in Chapter 2 Sigma Editor.

Font Conversion: The function of this tool is to convert the font to be a FNT format one in Font Manager which can be downloaded to the display. See Fig 4.8, the converting interface. Choose a fixed font and size you want to change, and set the saving path and the font size you want, press Convert button, then you can realize this function.

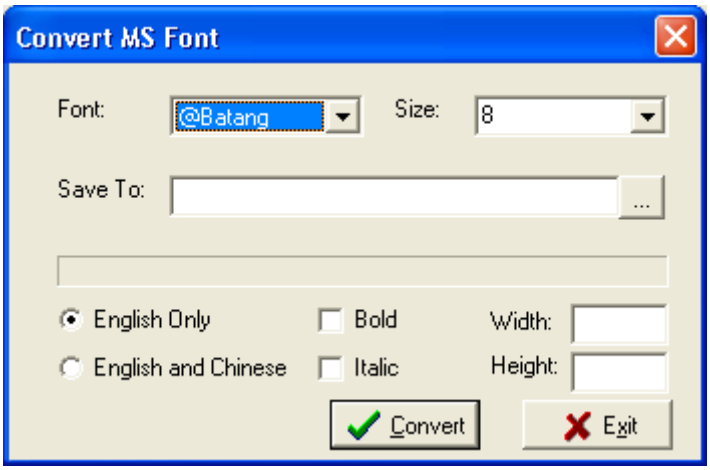


Fig 4.8 Font Converting Interface

4.1.2 Font List Menu

See Fig 4.9, the pull down menu of font list menu, we will introduce the functions and meanings.

Add: Add new font to the font list.

Delete: Delete font from the font list.

Edit: Edit the font in the font list.

Move Up: Move the chosen font up.

Move Down: Move the chosen font down.

Update Font List: Send the font list to the display.

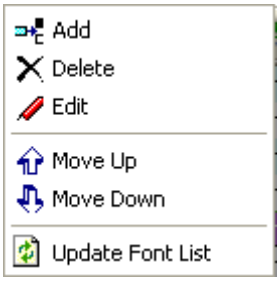


Fig. 4.9 Font List Menu

4.1.3 Window Menu

As Fig 4.10 shows, in the window menu, there are three functions: tile, cascade, and arrange icons. The following is the window converting bar of the open font list. The current chosen item is the first font list.

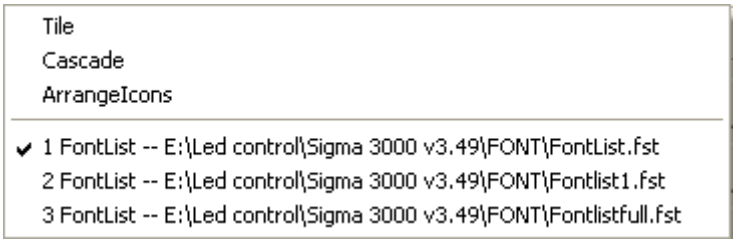

Tile
Cascade
ArrangeIcons
1 FontList -- E:\Led control\Sigma 3000 v3.49\FONT\FontList.fst
2 FontList -- E:\Led control\Sigma 3000 v3.49\FONT\Fontlist1.fst
3 FontList -- E:\Led control\Sigma 3000 v3.49\FONT\Fontlistfull.fst

Fig 4.10 Window Menu

4.1.4 Help Menu

As Fig 4.11 shows, the help menu mainly gives the version information of Font Manager.

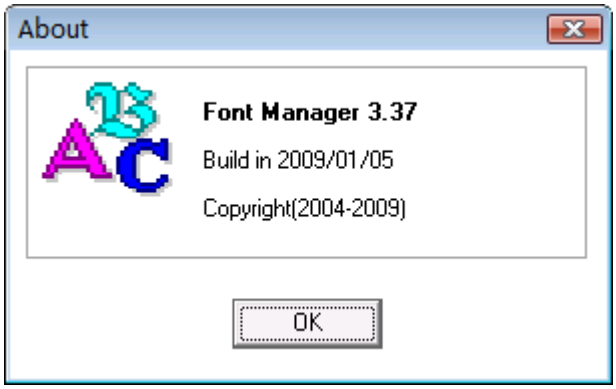


Fig 4.11 About Font Manager

4.2 Tool Bar

The buttons here are the same as the ones in Menu bar.

: Open the font list file.

: Save the font list.

: Add the font to the font list.

: Edit the font in the font list.

: Examine the font style.

: Update the font list to the display

: Move down the chosen font.

: Move up the chosen font.

: Exit from the Font Manager.

4.3 Font List Bar

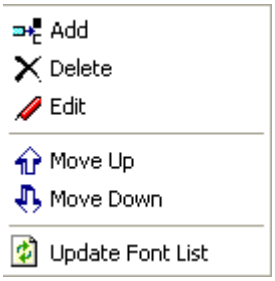


Fig. 4.12 Shortcut Menu

Font list area shows the fonts users have added. If you want to send some fonts to the display, you need to add those fonts to the list. There is a right key menu of the font list bar. See Fig 4.12. The function is the same as those pull down menu of the main menu. Suppose we want to send the font file Normal5-40 to the LED screen. We first add Normal5.fnt~Normal40.fnt to the font library. Then we click and we will see a communication interface. We select a mode that is workable for the LED screen, press the button OK, and we will see the progress bar moving towards 100%. If the data is sent, we will see the figures 4.13 and 4.14.

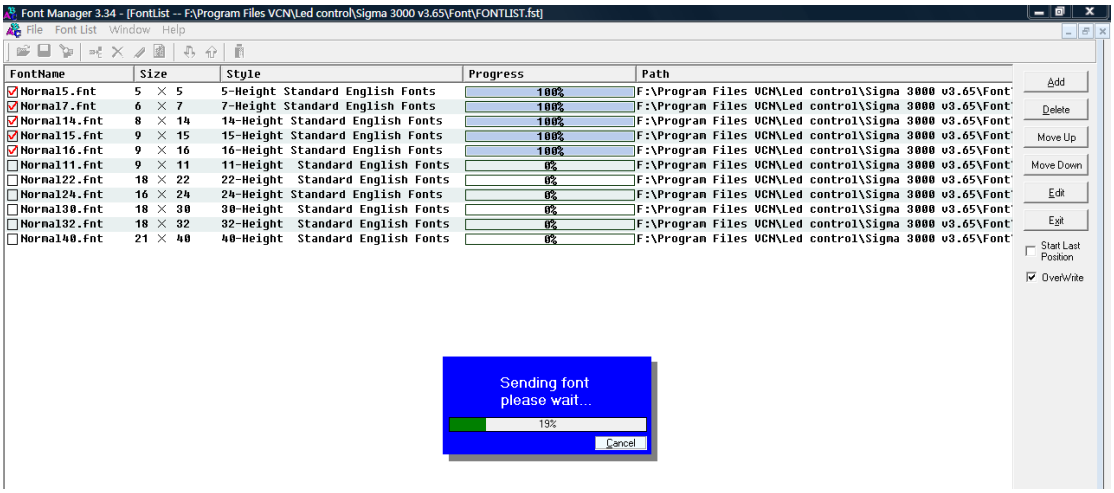

Font Manager 3.34 - [FontList -- F:\Program Files VCN\Led control\Sigma 3000 v3.65\Font\FONTLIST.fst]
File Font List Window Help
FontName Size Style Progress Path
Normal5.fnt 5 × 5 5-Height Standard English Fonts 100% F:\Program Files VCN\Led control\Sigma 3000 v3.65\Font
Normal7.fnt 6 × 7 7-Height Standard English Fonts 100% F:\Program Files VCN\Led control\Sigma 3000 v3.65\Font
Normal14.fnt 8 × 14 14-Height Standard English Fonts 100% F:\Program Files VCN\Led control\Sigma 3000 v3.65\Font
Normal15.fnt 9 × 15 15-Height Standard English Fonts 100% F:\Program Files VCN\Led control\Sigma 3000 v3.65\Font
Normal16.fnt 9 × 16 16-Height Standard English Fonts 100% F:\Program Files VCN\Led control\Sigma 3000 v3.65\Font
Normal11.fnt 9 × 11 11-Height Standard English Fonts 0% F:\Program Files VCN\Led control\Sigma 3000 v3.65\Font
Normal22.fnt 18 × 22 22-Height Standard English Fonts 0% F:\Program Files VCN\Led control\Sigma 3000 v3.65\Font
Normal24.fnt 16 × 24 24-Height Standard English Fonts 0% F:\Program Files VCN\Led control\Sigma 3000 v3.65\Font
Normal30.fnt 18 × 30 30-Height Standard English Fonts 0% F:\Program Files VCN\Led control\Sigma 3000 v3.65\Font
Normal32.fnt 18 × 32 32-Height Standard English Fonts 0% F:\Program Files VCN\Led control\Sigma 3000 v3.65\Font
Normal40.fnt 21 × 40 40-Height Standard English Fonts 0% F:\Program Files VCN\Led control\Sigma 3000 v3.65\Font
Add
Delete
Move Up
Move Down
Edit
Exit
Start Last Position
OverWrite
Sending font
please wait...
19%
Cancel

Figure 4.13 Font library being sent.

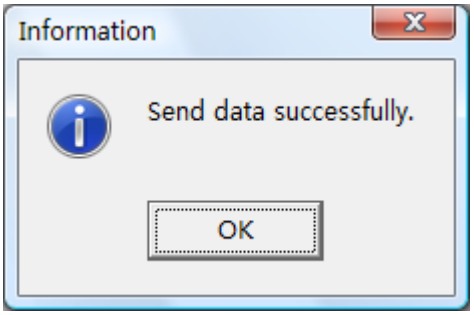


Figure 4.14 Data sent successfully

4.4 Shortcut Button

It is the repetition of the font list pull down menu. Being placed at the right side, users can use it quickly.

4.5 Status Bar

Status bar gives related information with the chosen font.

Font Width : 9：Width of the font is 9 dots.

Font Height : 15：Height of the font is 15 dots.

File Size : 6588 Byte : Size of the font is 6588 byte. (About 6k).

Chapter 5 Tools of Sigma Software

In the first chapter we have divided the Sigma Software interface to four parts, Menu Bar, Shortcut Panel, Work Station and Play Controller. We will focus on Menu Bar's function in this chapter.

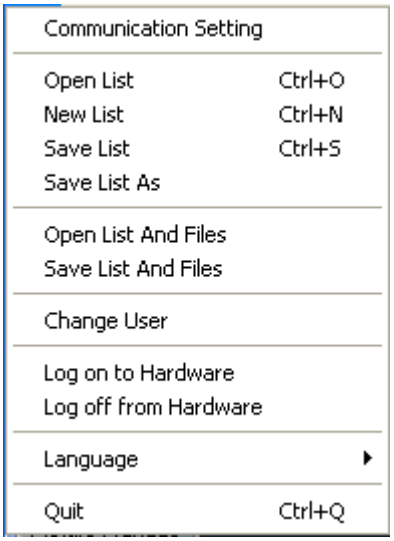


Fig. 5.1 File Menu

5.1 File Menu

Fig 5.1 shows the pull down menu list of Sigma Play File Menu.

5.1.1 Communication Setting

Fig 5.2 is communication setting interface which is the same as the counterpart in chapter 2 in function except a quick connection function.

Press the expansion button ＞ to open the connection displays. These items are searched in the Net Manager. Only those displays that can be searched in the Net Manager can be connected quickly. As Fig 5.3 shows, there are three displays to be chosen from the connection list. Choose any one and you can realize the communication with it.

If the display is found by Ethernet in Net Manage, then the display will be connected by network when connecting rapidly. If it is found by serial port, then it will be connected via serial port.

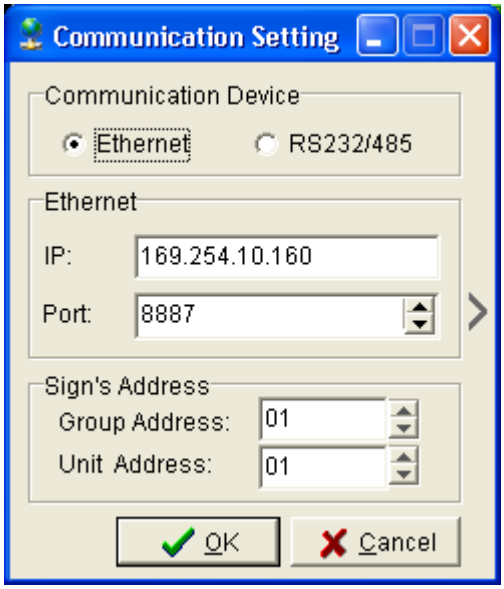


Fig. 5.2 Communication Setting

When connecting quickly, the related information about the display will be recorded automatically.

So once the GGUU or IP address or other correlated information about the communication changes, the seeking have to be executed once again. Or the quick connection will fail.

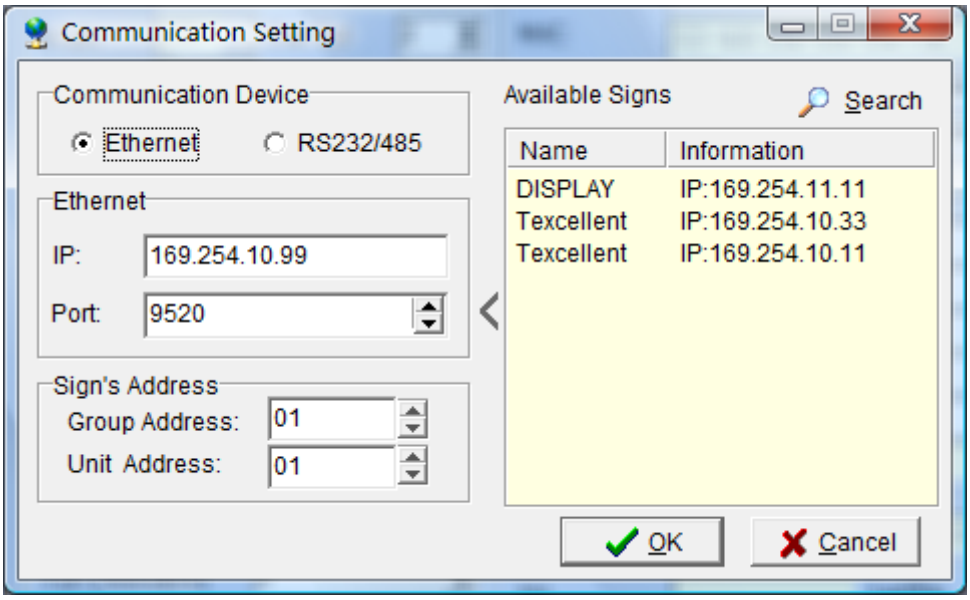


Fig. 5.3 Quick Connection Setting

5.1.2 Operation of Play List

There are six operating functions about the play list in the file menu. They are: New Play List, Open Play list, Save Play List, Save the Play List as, Open the List File Package, and Save List as well as File in a Package.

The final function means you can make a package for the chosen play list and its files in order to make the saving convenient. So you can open the list file package to open it when use next time. If you like, you can send it to other users to avoid unnecessary trouble.

See Fig 5.4. When packing the play list and files into a package, there will popup a save as window. Input Play-list in the file name bar and then press the Save button you can finish packing the play list with format flf.

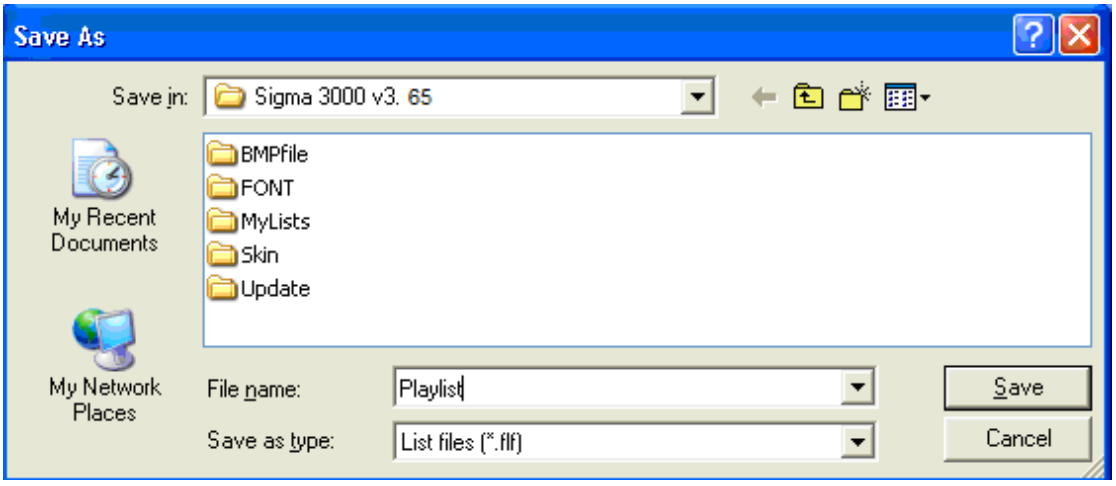


Fig 5.4 Packing play list

Note: Only after choosing a play list can you save the list and file in a package.

5.1.3 Change user

Fig 5.5 is the login interface from which you can change login users. The following table shows the login way.

Fig 5.5 Login interface

User rank	User name	Password
Manager	admin	admin
Ordinary user	user	user

5.1.4 Log on to Hardware

The login hardware mainly includes log on to hardware and logout. The function can be set in the ***System Set*** panel. Once set, you have to choose *Login on to Hardware* to communicate with the display hardware. In this way, you can avoid the parameter changing by unprofessional persons or some illegal operations.

Fig 5.6 illustrates the login interface. The default user name is administrator and default password 000000. Press OK, and the login is successful. See Fig 5.7.

Fig 5.6 Login on to hardware

Fig 5.7 Login successfully

5.1.5 Others Operations

The last two items about the file menu is language and exit. Only English and Chinese is available.

5.2 Function Menu

Fig 5.8 is the pull-down menu of function menu. We will divide them to several parts and introduce them one by one.

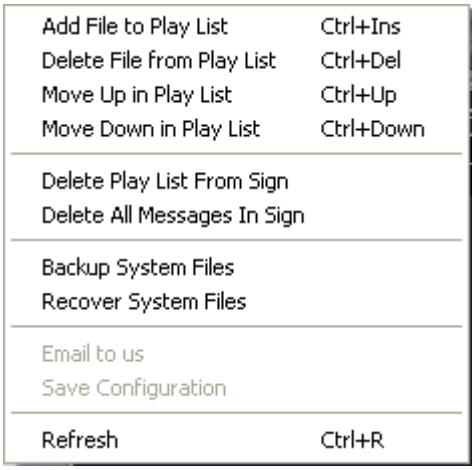

Add File to Play List Ctrl+Ins
Delete File from Play List Ctrl+Del
Move Up in Play List Ctrl+Up
Move Down in Play List Ctrl+Down
Delete Play List From Sign
Delete All Messages In Sign
Backup System Files
Recover System Files
Email to us
Save Configuration
Refresh Ctrl+R

Fig. 5.8 Function Menu

5.2.1 Function of Play List

The four items above the separation line are
functions operated on play list. The first one is
add file to play list, the second one is delete file
from play list and the third one move up in play list, and the final move down in play list. These functions are available only in list manage panel and simulating display panel.

5.2.2 Function of Sign Play List

The two items above the second separate line are deleting play list from sign and deleting all messages in sign. After deleting the play list from sign, the display can show all the files automatically on without the control of the play list. Fig 5.9 gives an indication whether you are sure to delete the play list from the sign.
If you delete all messages in sign, then there is nothing left on the sign.

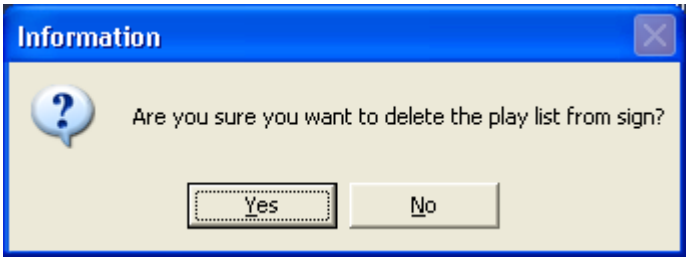


Fig 5.9 Hint of delete the play list from sign

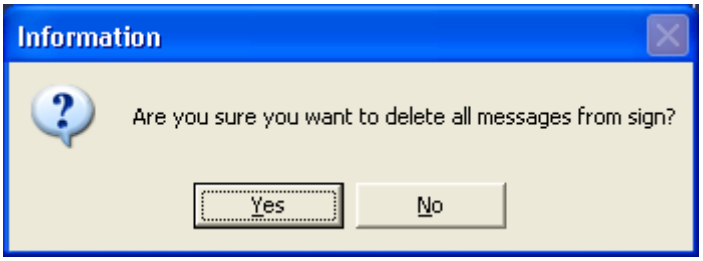


Fig 5.10 Delete all messages from sign

5.2.3 Function of Backup/Recover

The two items of the third separate line are Backup System Files and Recover System Files.
As shown in Fig 5.11, the indication window will appear when you choose to back up system files, click Yes and it starts. In Fig5.12.The major files that can be backed up are FPGA files, configuration information, r files and palette files and so on.

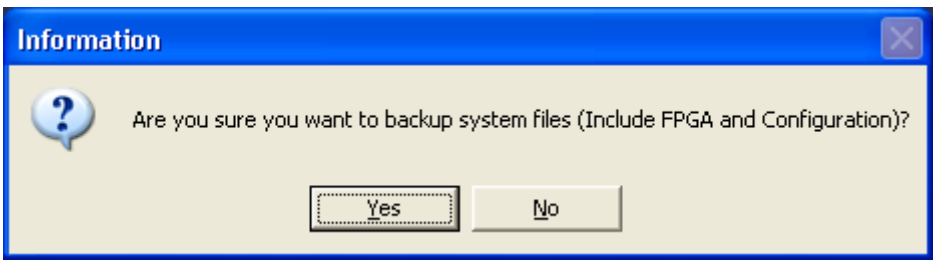


Fig. 5.11 Backup System File indication

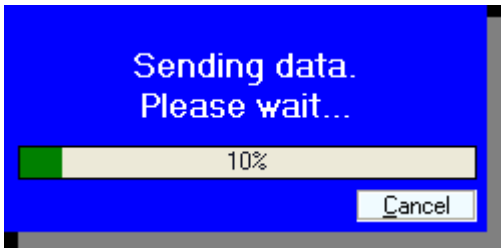


Fig. 5.12 Back up the system file

See Fig 5.13, when choosing Recover System Files, the indication window will appear, and then you click **Yes** to start recovering system files.

In fact, the current CPU program has already backed up configuration files, Gamma files and palette files, so that formatting Disk C will not erase system files, and the only thing you need to do is refresh FPGA program.

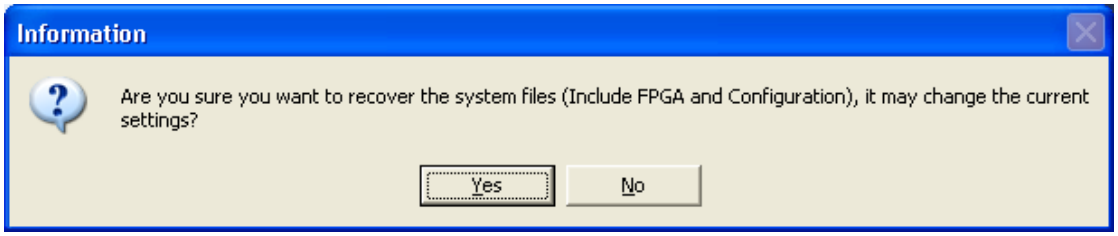

Information
Are you sure you want to recover the system files (Include FPGA and Configuration), it may change the current settings?
Yes
No

Fig. 5.13 Recovering system files

5.2.4 Other Functions

The last three functions in this menu shall be explained as Other Functions.

The first of them is sending e-mail; this function enables the customers to send us email about configuration information and system information of the sign. Both this function and the next can be available only in the ***System Set*** panel. Then, the user just needs to choose sending e-mail, and click **Yes** in the following window.

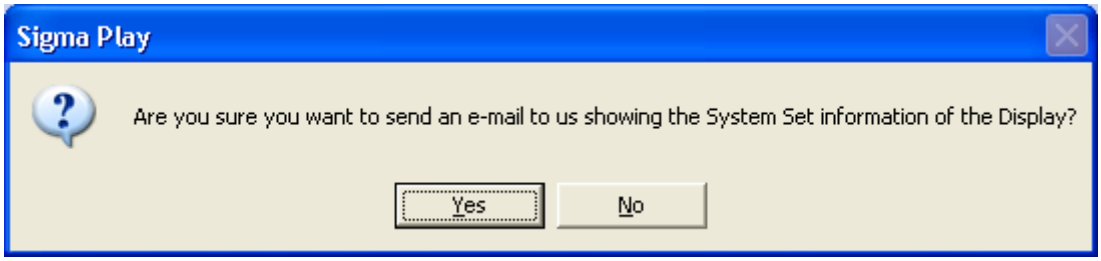


Fig. 5.13 Indication window of sending e-mail to us

With this function, we can get to know if there are problems with the system set at customers' end, or whether the system information is right or not, so that we can help customers correct the mistakes. The Email is to be sent to our Supports' mail box. More Email settings can be done in Tool→Advanced Options→E-Mail Setting. Customers can choose the sender and the receiver of the E-Mail according to their need. When all is set, the only thing left is to click OK, as shown in Fig 5.14.

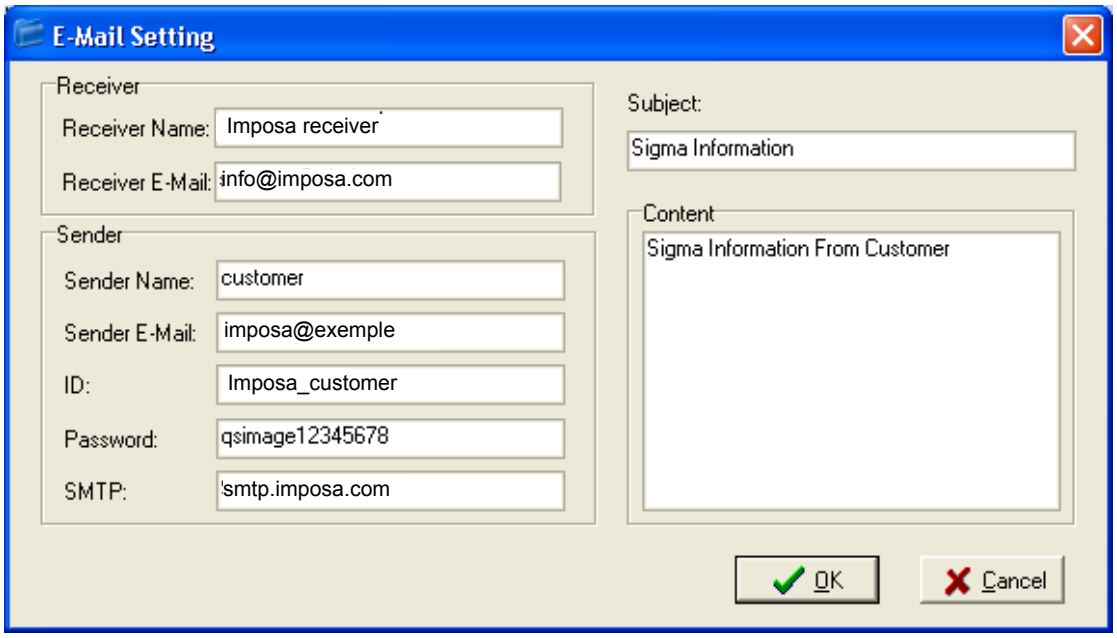


Fig. 5.14 E-Mail Setting

Next is to Save System Information. What is saved by this function is the information the E-mail has sent. As shown in Fig 5.15, the path in the first blank is to save the picture of the system set interface, the path in the second blank is to save the text file of system set information.

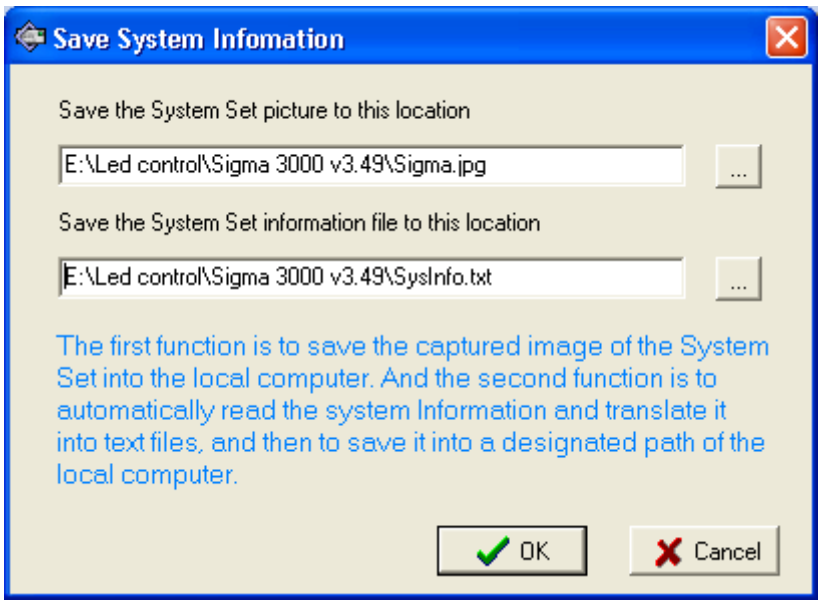

Save System Infomation
Save the System Set picture to this location
E:\Led control\Sigma 3000 v3.49\Sigma.jpg
...
Save the System Set information file to this location
E:\Led control\Sigma 3000 v3.49\SysInfo.txt
...
The first function is to save the captured image of the System Set into the local computer. And the second function is to automatically read the system Information and translate it into text files, and then to save it into a designated path of the local computer.
OK
Cancel

Fig. 5.15 Save System Information

Click OK, and the following window as Fig.5.16 will appear when the saving finishes.

Fig. 5.16 Saving finishes

As shown in Fig.5.17, it is the image of Sigma.jpg saved above.

Fig. 5.17 An image of Sigma.jpg

As shown in Fig.5.18, it is the interface of SysInfo.txe saved above.

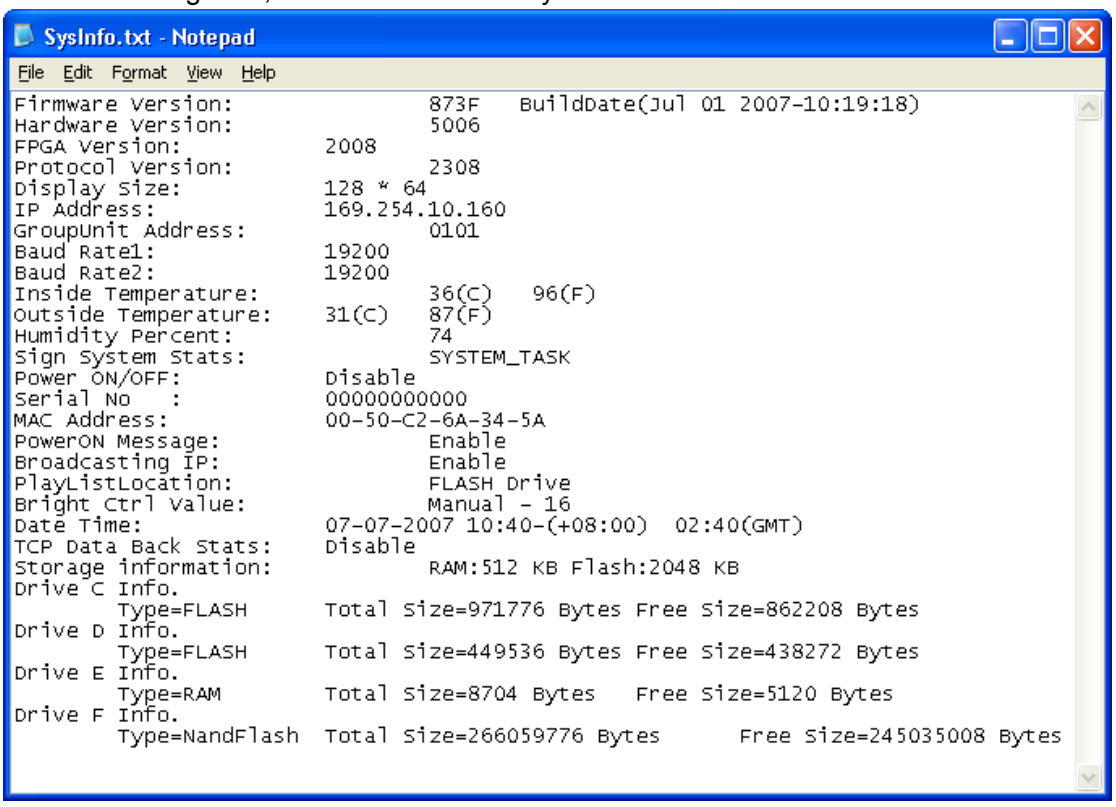
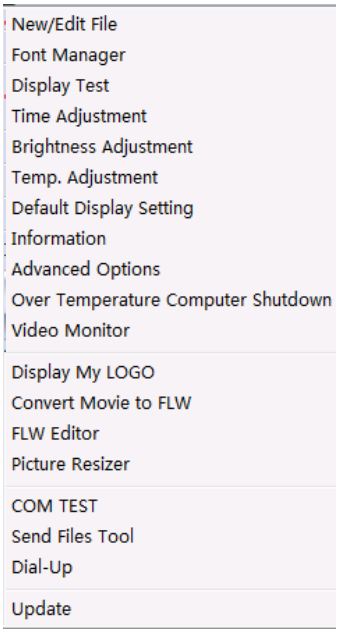

SysInfo.txt - Notepad
File Edit Format View Help
Firmware Version: 873F BuildDate(Jul 01 2007-10:19:18)
Hardware Version: 5006
FPGA Version: 2008
Protocol Version: 2308
Display Size: 128 * 64
IP Address: 169.254.10.160
GroupUnit Address: 0101
Baud Rate1: 19200
Baud Rate2: 19200
Inside Temperature: 36(C) 96(F)
Outside Temperature: 31(C) 87(F)
Humidity Percent: 74
Sign System Stats: SYSTEM_TASK
Power ON/OFF: Disable
Serial No : 00000000000
MAC Address: 00-50-C2-6A-34-5A
PowerON Message: Enable
Broadcasting IP: Enable
PlayListLocation: FLASH Drive
Bright Ctrl Value: Manual - 16
Date Time: 07-07-2007 10:40-(+08:00) 02:40(GMT)
TCP Data Back Stats: Disable
Storage information: RAM:512 KB Flash:2048 KB
Drive C Info.
Type=FLASH Total Size=971776 Bytes Free Size=862208 Bytes
Drive D Info.
Type=FLASH Total Size=449536 Bytes Free Size=438272 Bytes
Drive E Info.
Type=RAM Total Size=8704 Bytes Free Size=5120 Bytes
Drive F Info.
Type=NandFlash Total Size=266059776 Bytes Free Size=245035008 Bytes

Fig. 5.18 A grabbed image from SysInfo.txt

And the last function is Refreshing content. It is designed to send the information in the current shortcut panel to the sign. This function equals to Send Configuration, Send List Files, etc., but it is not available in Net Manage. Don't use this function in Net Manage.

5.3 Tool Menu



The Figure 5.19 is a pull-down menu of Tool menu. Edit File and Font Manager have been introduced in detail in previous Chapters, and please refer to the previous explanation.

5.3.1 Display Test

Display Test is a special tool for screen test. It has test of single color full-on, scan test and test of gradual change of gray degree in single color. These tests can check if the sign is working abnormally or has flashing pixels. As shown in Fig 5.20, Display Test is consisted of two parts, the left is General Test and the right is Gray Test. These tests are carried out in the status of off-line, thus they are invalid in VGA screen. As for the Gray Test, you can input any number from 1 to 256 into Gray Scale, and there are two styles available, they are Color and Gradual Change. Color means the sign will be in only one color you choose, and its brightness is decided by gray degree. And Gradual Change means a static process of changing from bright gradually to less bright.

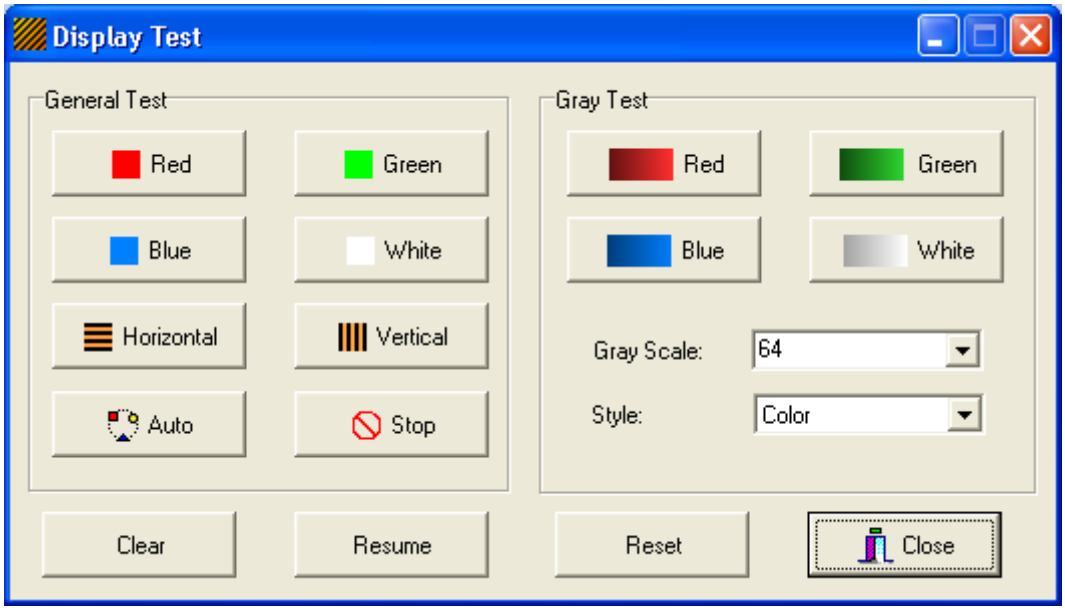


Fig. 5.20 Display Test

5.3.2 Time Adjustment

Fig 5.21 is an interface for Time Adjustment. As for the time in sign, we sometimes have to adjust it to make it synchronized with the time in computer. Because there are different time zones, and user should choose a right time zone before adjusting the time.

This tool supports time adjustment of main board and slave board, i.e. if these two boards are linked; only an adjustment to the main board will make the time in slave board adjusted too.

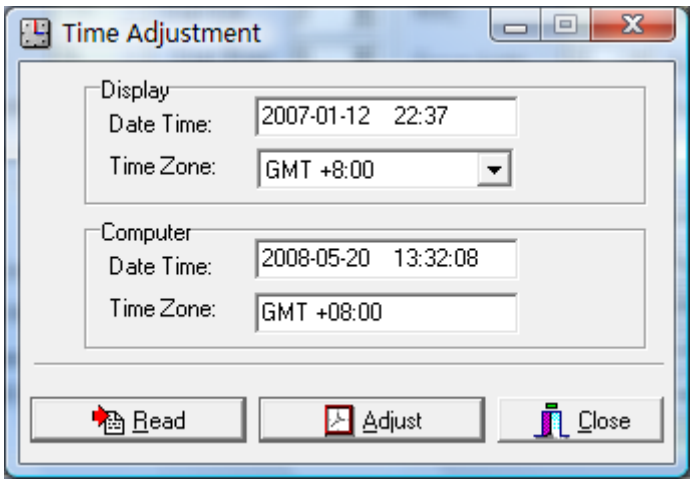


Fig. 5.21 Time Adjustment

5.3.3 Brightness Adjustment

Fig 5.22 is an interface for Brightness Adjustment. This tool enables you to set the brightness of a small unit block so that you can have the white balance of a sign coordinated. Detailed operations as following: first of all, select 4*8 blocks, you can select one block at a time, or many blocks by means that indicated in the state bar below. Then, in the right panel, you can set the value of brightness by clicking up or down buttons, and also you can input numbers in to RGB blocks. When everything is set, you just click Set to send the value of brightness to the sign.

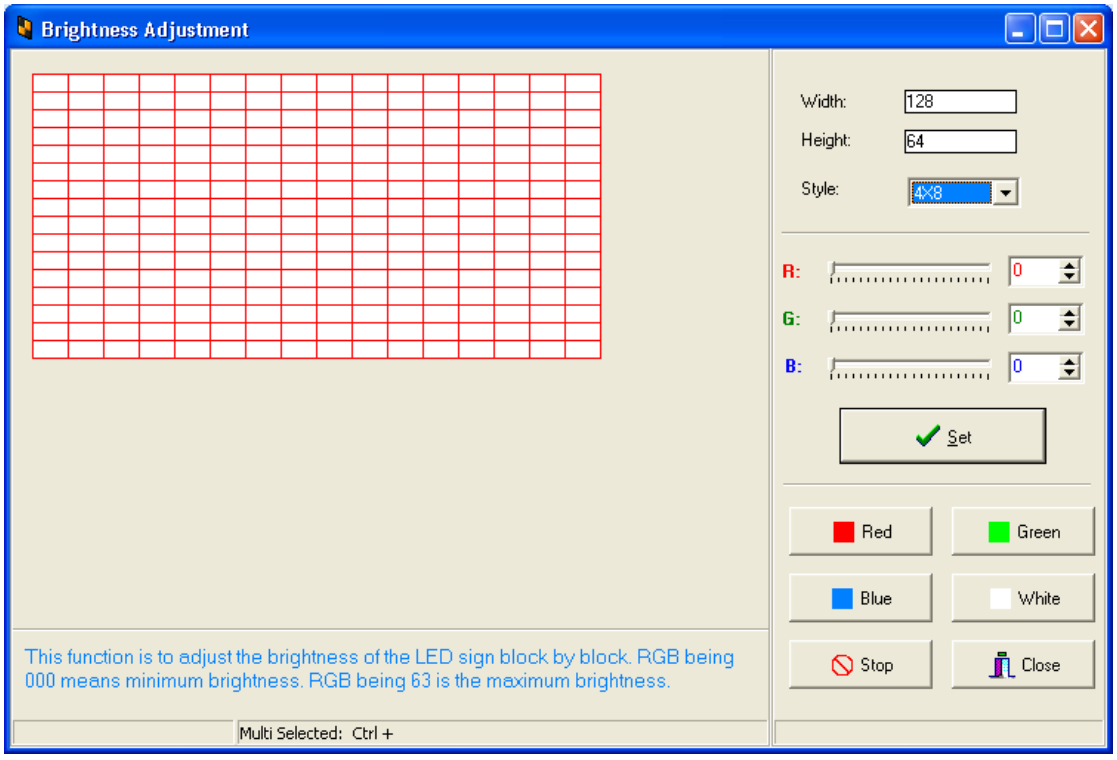


Fig. 5.22 Brightness Adjustment

At the bottom of the right panel are tests of full Red, full Green, full Blue and full White for the whole sign, which is for the sake of a comparison of brightness between adjusted block and the whole sign.

5.3.4 Temp. Adjustment

As shown in Fig 5.23, Temperature Adjustment can adjust the temperature of exterior temperature sensor of LED sign, and you can adjust the temperature in Celsius or Fahrenheit degree.

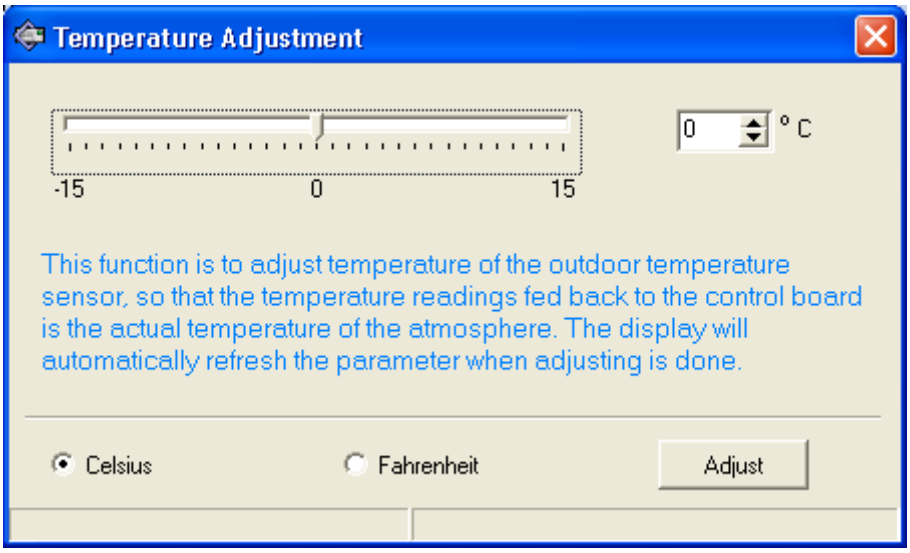

Temperature Adjustment
-15
0
15
0
° C
This function is to adjust temperature of the outdoor temperature sensor, so that the temperature readings fed back to the control board is the actual temperature of the atmosphere. The display will automatically refresh the parameter when adjusting is done.
Celsius
Fahrenheit
Adjust

Fig. 5.23 Temp. Adjustment

5.3.5 Default Display Setting

Fig 5.24 is an interface of Default Display Setting. This tool is valid only to string command, but not to files edited by Sigma Editor. This tool is different from the Default Setting in Sigma Editor.

For example, after setting Default Display Setting, we send JetFile II command file to the sign. The command is <0x01>Z00<0x02>AA<0x06>Welcome<0x04>, a simple JetFile II command. When it is sent successfully, the sign will display *Welcome*, which is displayed in accordance with the Default Display Setting. This means that *Welcome* has a black Background Color, red Text Color, and it is saved in Folder T of Disk D, its Default Font is Normal 7,In Mode and Out Mode Random, Speed Medium Fast, Pause time on the sign 3 seconds, Hor Justification Center and so on.

If you change the Default Display Setting, the outcome of *Welcome* will change accordingly. For example, if you set Default Font as Normal 14, *Welcome* will be displayed in Normal 14.

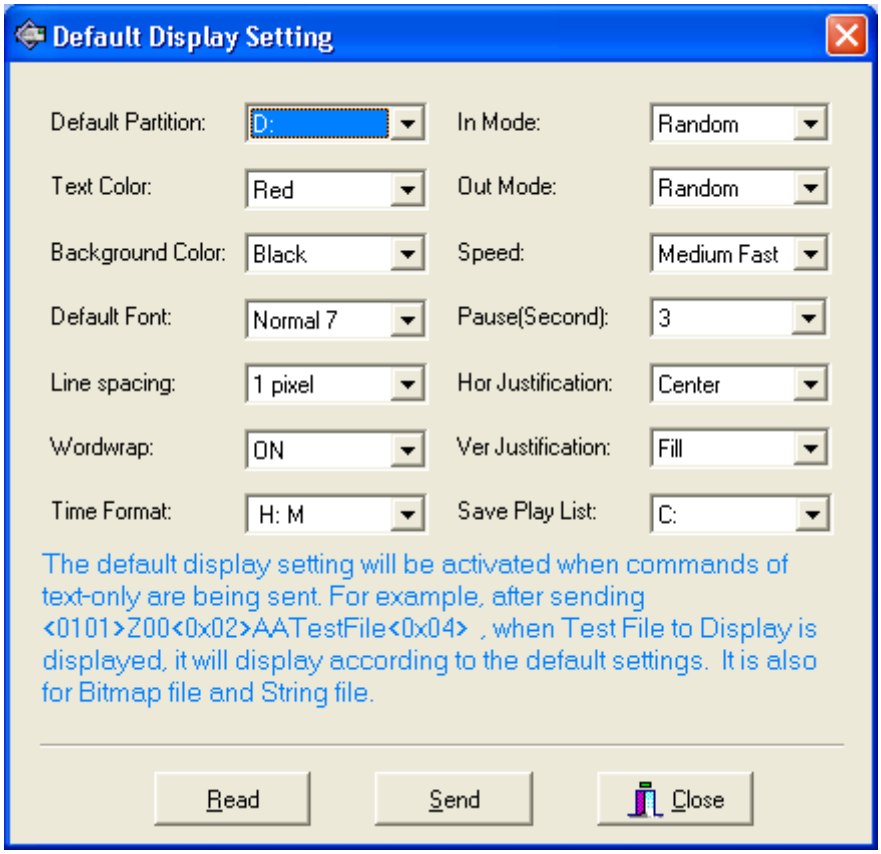


Fig. 5.24 Default Display Setting

Default Disk: default saving path is Disk D;
Text Color: default color of text file is Red
Background Color: default background color of text file is Black
Default Font: default font of text file is Normal 7.
Line spacing: default line space is 1 pixel.
Word-wrap: default value is ON
Time Format: to set default time format. H: M means when time value is less than10, 0 will not be displayed before the value; while HH: MM means 0 will be displayed when time value is less than 10.
In Mode: default In Mode is Random.
Out Mode: default Out Model is Random
Speed: default Speed is Fast.
Pause: default Pause time is 3 seconds.
Hor Justification: default horizontal justification is Center
Ver Justification: default vertical justification is to Fill.
Save Play List: to set default Disk for saving Play List, and the default Disk is Disk C.

5.3.6 Information

There are five kinds of information in Information List, they are System Information, Disk Information, Play Log, System Log and Update Log.

①System Information

As shown in Fig 5.25, what is taken down is the information of the control board QS5006 of the sign, and you can educe the information as a txt file.

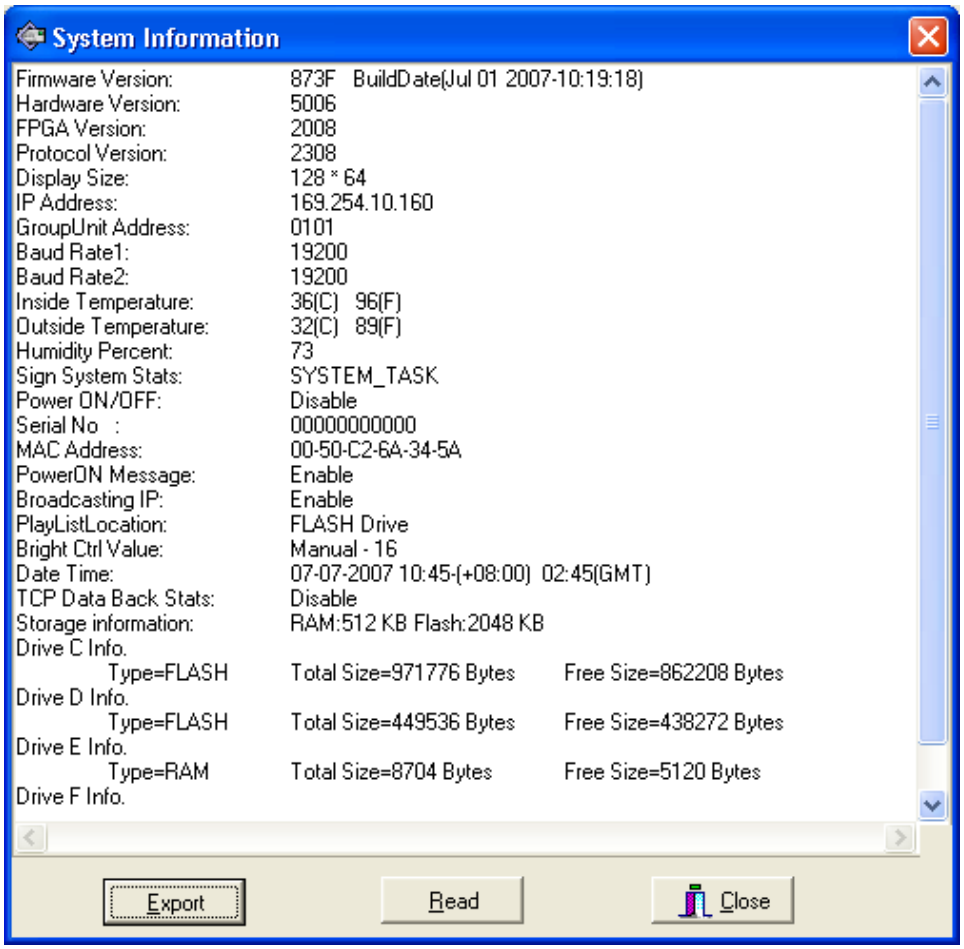


Fig. 5.25 System Information

②Disk Information

As shown in Fig 5.25, it is specialized in reading the size of system Disk, and it can format the partitions. After clicking Format, an indication window will appear (as in Fig5.27), then click Yes to format Disk C.

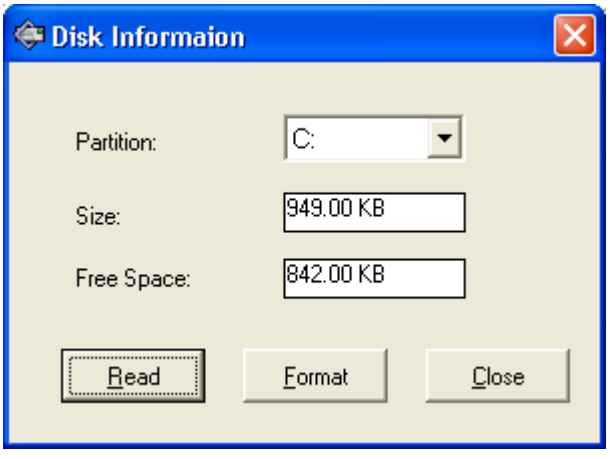


Fig. 5.26 Disk Information

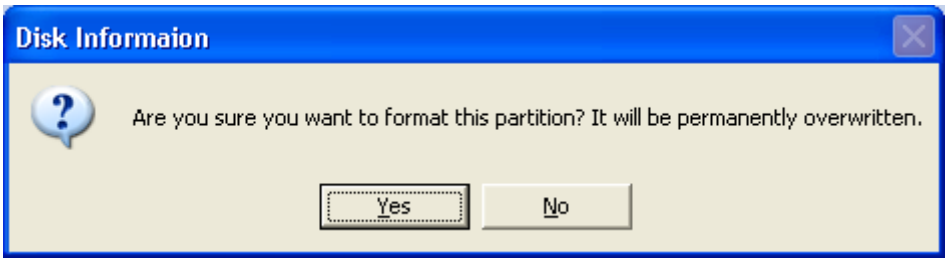


Fig. 5.27 Indication for formatting

Note: Disk C is a System Disk, FPGA program will be lost after Disk C is formatted, but other information is backed up. If font library is saved in Disk C, it will also be lost.

③Play Log

Fig 5.28 is an interface of Play Log. In this Play Log, there is serial Number marking the Play Files. The number ranges from 0 to 65536, and if the number of files are more than 65536, the beginning files will be deleted automatically. There is Time Period to record time period of display files, and the unit of Time Period is 1 hour. The path and file name of display files are recorded. The length of File Name should be no more than 8 characters, and is recorded with 8.3 principle. This Play Log records the times and period (total amount of display time) of displaying.

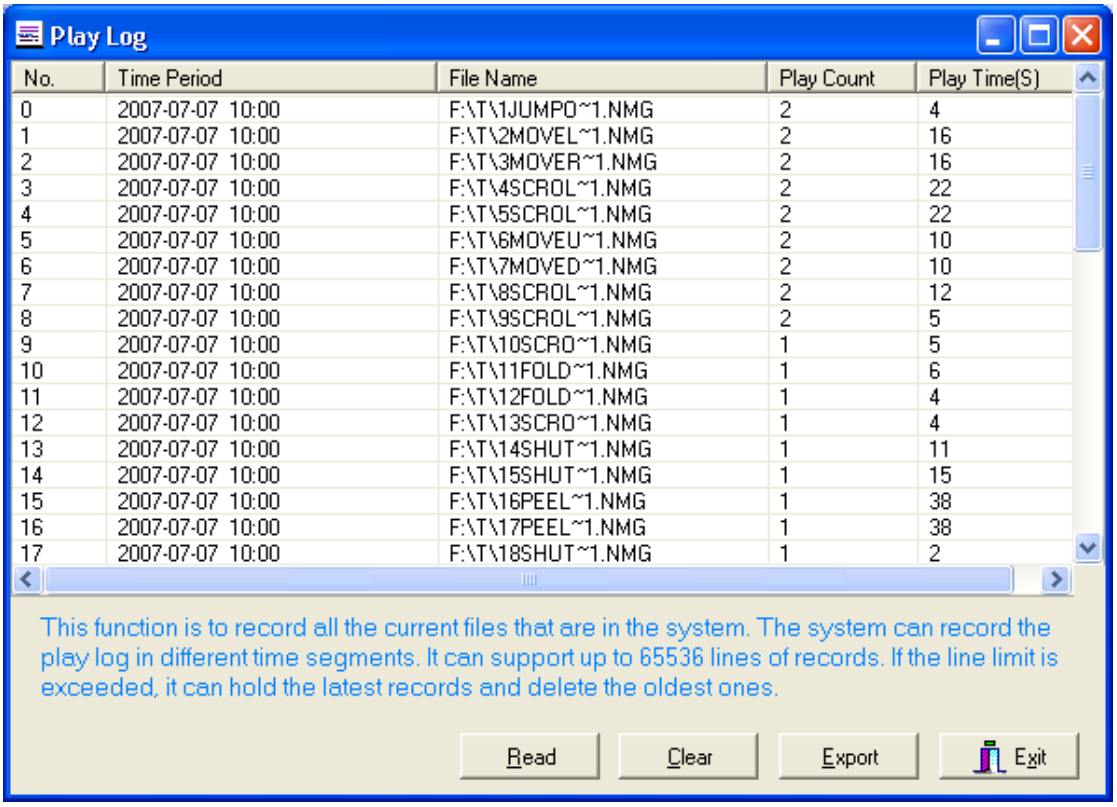

Play Log
No. Time Period File Name Play Count Play Time(S)
0 2007-07-07 10:00 F:\T\1JUMPO~1.NMG 2 4
1 2007-07-07 10:00 F:\T\2MOVEL~1.NMG 2 16
2 2007-07-07 10:00 F:\T\3MOVER~1.NMG 2 16
3 2007-07-07 10:00 F:\T\4SCROL~1.NMG 2 22
4 2007-07-07 10:00 F:\T\5SCROL~1.NMG 2 22
5 2007-07-07 10:00 F:\T\6MOVEU~1.NMG 2 10
6 2007-07-07 10:00 F:\T\7MOVED~1.NMG 2 10
7 2007-07-07 10:00 F:\T\8SCROL~1.NMG 2 12
8 2007-07-07 10:00 F:\T\9SCROL~1.NMG 2 5
9 2007-07-07 10:00 F:\T\10SCRO~1.NMG 1 5
10 2007-07-07 10:00 F:\T\11FOLD~1.NMG 1 6
11 2007-07-07 10:00 F:\T\12FOLD~1.NMG 1 4
12 2007-07-07 10:00 F:\T\13SCRO~1.NMG 1 4
13 2007-07-07 10:00 F:\T\14SHUT~1.NMG 1 11
14 2007-07-07 10:00 F:\T\15SHUT~1.NMG 1 15
15 2007-07-07 10:00 F:\T\16PEEL~1.NMG 1 38
16 2007-07-07 10:00 F:\T\17PEEL~1.NMG 1 38
17 2007-07-07 10:00 F:\T\18SHUT~1.NMG 1 2
This function is to record all the current files that are in the system. The system can record the play log in different time segments. It can support up to 65536 lines of records. If the line limit is exceeded, it can hold the latest records and delete the oldest ones.
Read
Clear
Export
Exit

Fig. 5.28 Play Log

④System Log

As shown in Fig 5.29, System Log records the main operation of the system. It reflects the working status of the control card of a sign.

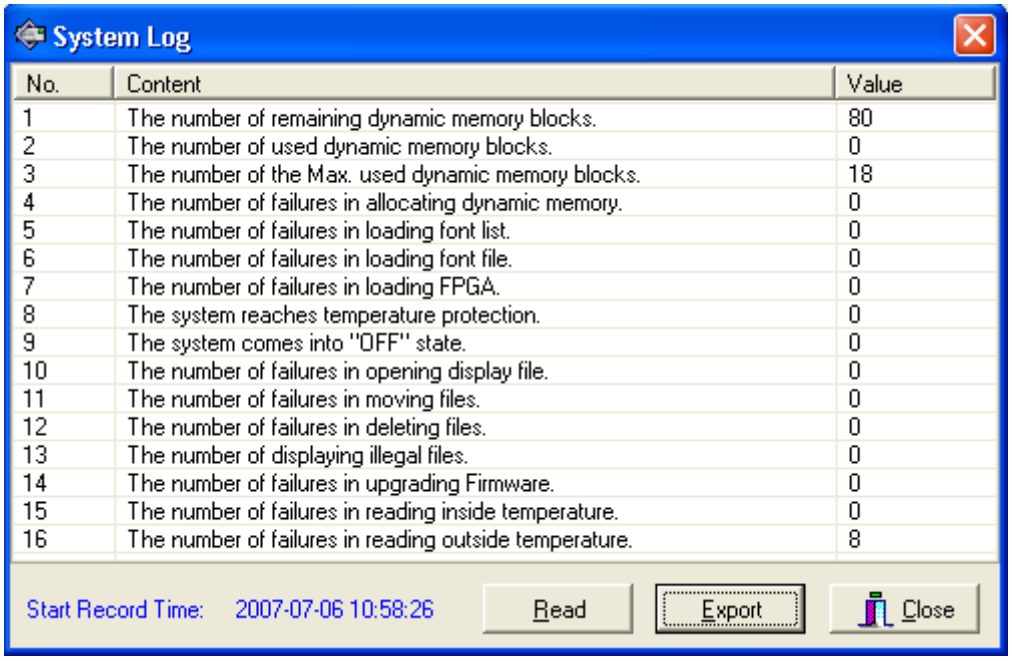

System Log
No.
Content
Value
1 The number of remaining dynamic memory blocks. 80
2 The number of used dynamic memory blocks. 0
3 The number of the Max. used dynamic memory blocks. 18
4 The number of failures in allocating dynamic memory. 0
5 The number of failures in loading font list. 0
6 The number of failures in loading font file. 0
7 The number of failures in loading FPGA. 0
8 The system reaches temperature protection. 0
9 The system comes into "OFF" state. 0
10 The number of failures in opening display file. 0
11 The number of failures in moving files. 0
12 The number of failures in deleting files. 0
13 The number of displaying illegal files. 0
14 The number of failures in upgrading Firmware. 0
15 The number of failures in reading inside temperature. 0
16 The number of failures in reading outside temperature. 8
Start Record Time: 2007-07-06 10:58:26
Read
Export
Close

Fig. 5.29 System Log

⑤Update Log

Fig5.30 is a grabbed image of Update Log. It records the information, time and updated communication method of FPGA and CPU files.

```
UPDATE END**********************************************************

UPDATE FPGA*********************************************************
2007-07-02 14:16:02
Display Name: DISPLAY
IP: 169.254.10.53
Group Address: 01    Unit Address: 01
Communication Error!
UPDATE END**********************************************************

UPDATE FPGA*********************************************************
2007-07-02 16:18:07
Display Name: DISPLAY
IP: 169.254.10.160
Group Address: 01    Unit Address: 01
Sent successfully!
UPDATE END**********************************************************
```

Fig. 5.30 Update Log

For example, in the UPDATE CPU above, it records that updated time is 2007-07-02 16:22:28, the Hardware Version of the updated object is main board 5006, the version number of the pervious CPU is 873B-01, and the new CPU version number is 873F-02, the name of sign is DISPLAY, new IP address is 169.254.10.160, GGUU is 0101, the result of updating is Sent Successfully.

5.3.7 Advanced Options

There are four options in Advanced Options, they are User Management, Change Hardware Password, Get Hardware Password and E-mail Setting.

①User Management

The function of this option is to manage the users logging in to Sigma. Fig5.31 is an

interface of User Management.

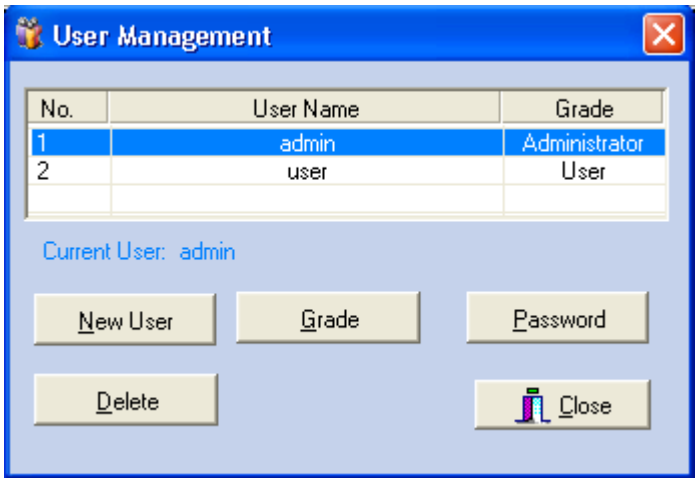


Fig. 5.31 User management

②Change Hardware Password

As Fig. 5.32 shows, input old password, whose default value is 000000, into Old Password, then input the new one into the blanks of New Password and Repeat Password, and then the old password can be changed.

Fig. 5.32 Change Hardware Password

③Get Hardware Password

As Fig. 5.33 shows, open the window of Get Hardware Password; firstly choose the path of the file which has saved password data.

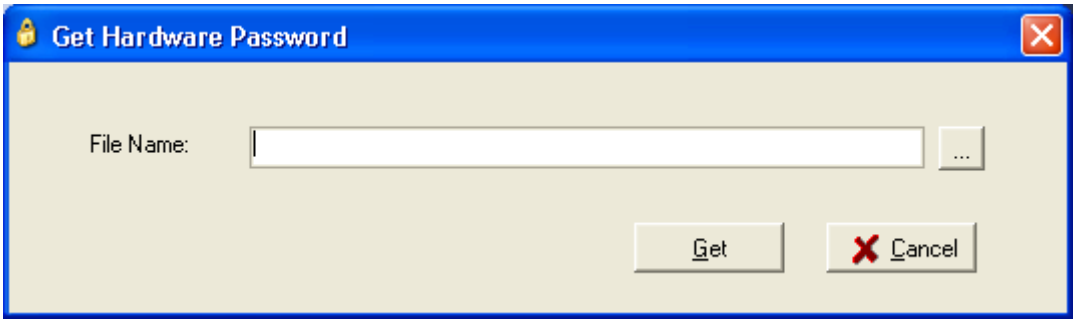


Fig. 5.33 Get Hardware Password

As Fig. 5.34 shows, after choosing the path, click “Get”, and then turn off the power of the Display Control Board immediately. Turn on the power and wait for the opening information of the display.

Note: Because the data of the password is given during the process of turning on the

Display, so we should get the data at the beginning of boot-strap.

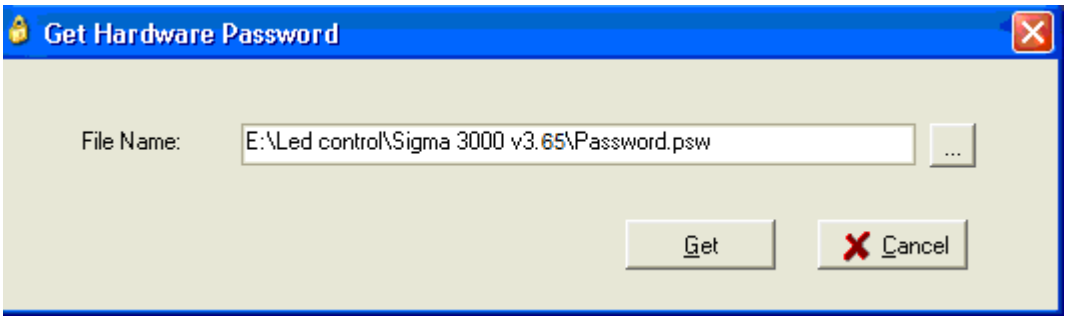


Fig. 5.34 Choose the saving path of file

As Fig. 5.35shows, reading data is successful.

Fig. 5.35 Reading Data successful

After successfully get the password data, users cannot see the passwords, the data should be sent back to our company and decoded by our engineers, then the password can be got finally. Therefore, in case to prevent any unnecessary trouble, users have to remember the password after setting it.

④E-Mail Setting

As Fig. 5.36 shows, it is the interface of E-mail Setting. We have mentioned how to use this interface before (Fig. 5.14). Here we would like to repeat it.

In this setting, the default receiver is our company after-sale service mail box info@imposa.com. If users want to change it to be their own mail address, they can do it here. The default sender is our company. Users can modify it to be their own sending address (if there is something wrong when sending email).

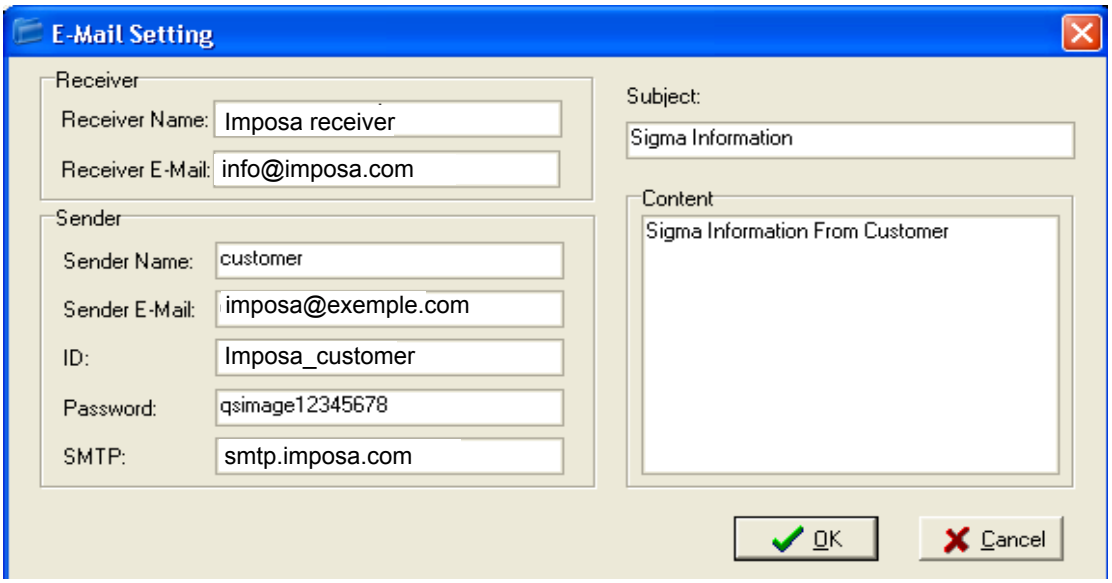


Fig. 5.36 E-Mail Setting Interface

5.3.8 Display My Logo

As Fig. 5.37 shows, it is the setting interface of “Display My Logo”. There are functions of setting position, size and display modes of the Logo.

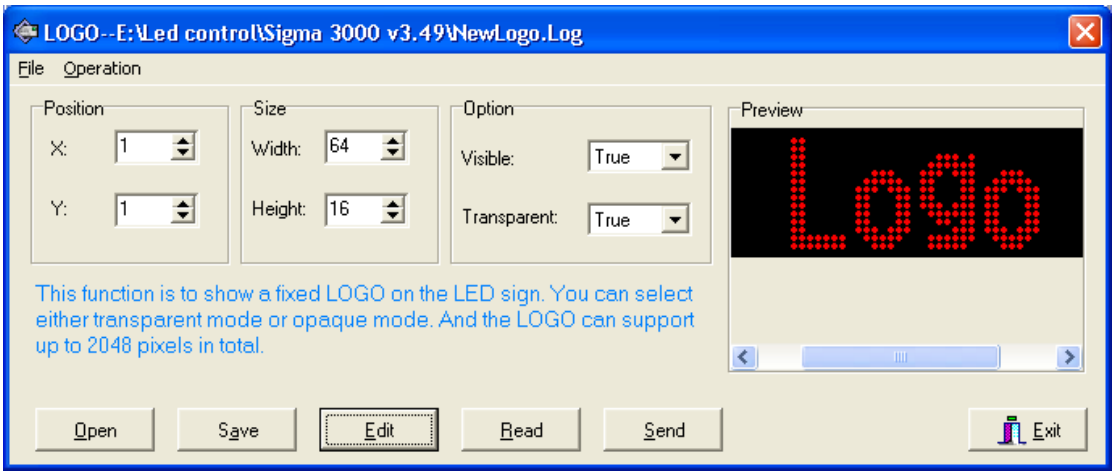


Fig. 5.37 LOGO Setting Interface

Position is for setting the Logo with the left corner to be the coordinate. Size is for setting width and Height of the Logo. There are two options--visible and transparent. Under Transparent, the Logo will flow on the characters of the Display.

Open: Open the edited Logo files.;

Save: Save the current Logo files;

Edit: As Fig. 5.38 shows, click “Edit” and you will open Logo Editor, the function of which is similar with Sigma Editor. It is simplified version of Sigma Editor. For more details please refer to Chapter 2.

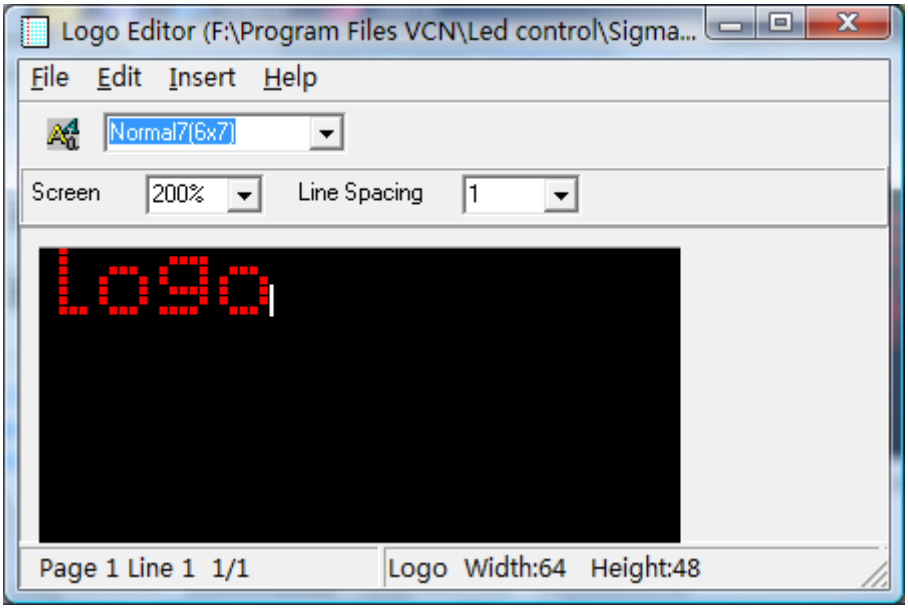


Fig. 5.38 Logo Editor Interface

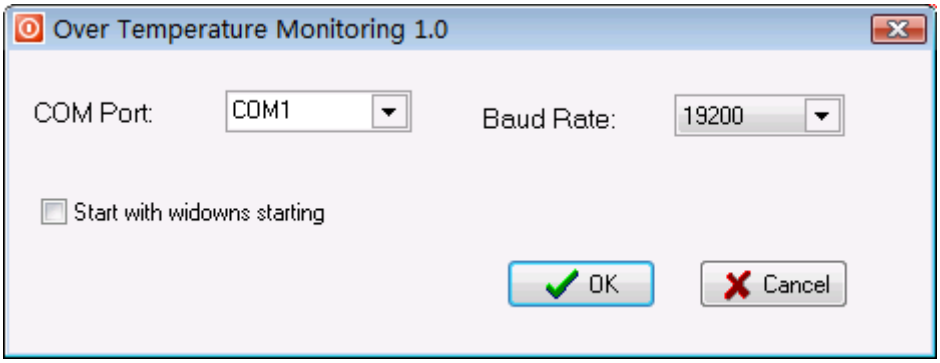
Read: Read the Logo files of the Display;

: Send the current Logo files to the Display.

5.3.9 over temperature computer shutdown

This software can be off the computer when the internal temperature of the sign over 70℃

when using QS52002, please check in “over temperature computer shutdown” and open “over temperature monitoring”, connecting the COM of the QS5202 with the COM of the computer, then can be communicated .



An icon will be appeared at the lower right corner when set up successful .

5.3.10 Video Monitor

picture 5.3.9 is the interface of Video Monitor, please insert an IP adds of network camera in the address bar, then will see a frame of that camera.

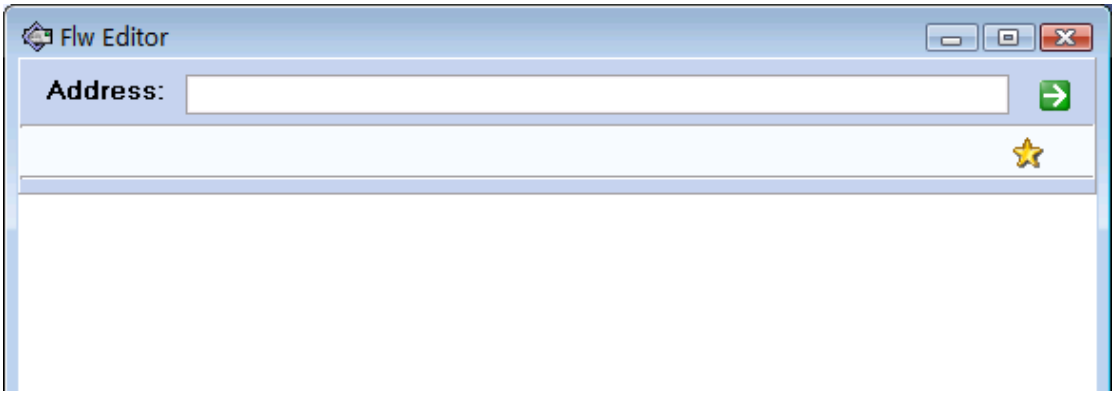
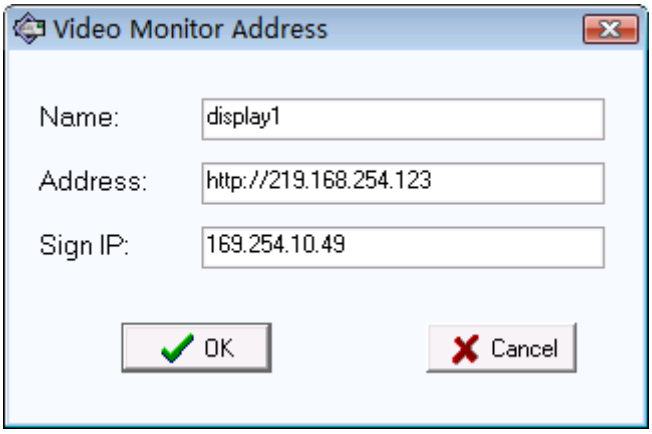


Figure 5.3.9

Check in , to add a Monitor clipper key of the sign, can add more .



Name: shown the name of sign(can be any number or letters)

Address: IP address of network camera.

Sign IP: IP address of LED sign

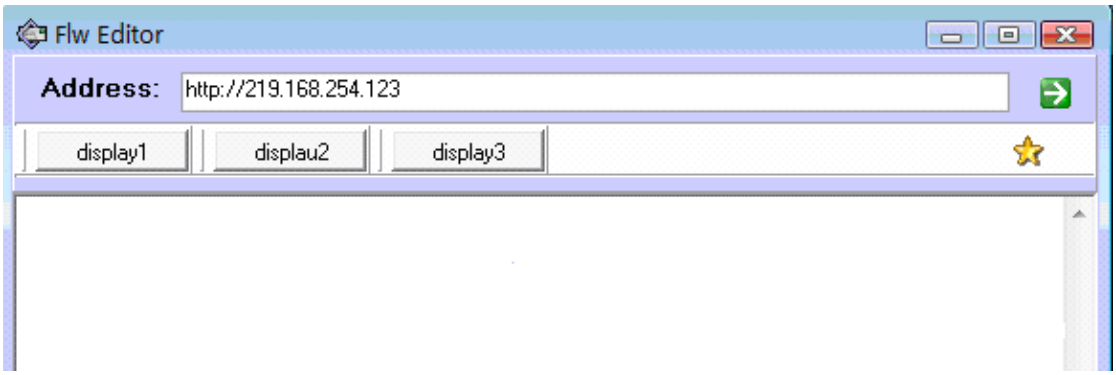


Figure 5.3.9

5.3.11 Video to FLW Conversion Mode

If you want to display an animation file in the offline mode, you will need this tool to convert the file into the FLW so that the LED screen can display. The current software version supports converting AVI, SWF, GIF, ASF, WMV, MPG, MPEG, MP4, 3GP, MOV, QT, RM or RMVB files into FLW format files.

The Figure 5.39 shows an interface of a video file converted into the FLW mode. ① is the animation file preview window; ② is the modification or setting window; ③ is the animation file conversion and simulator display window; ④ is the animation file conversioin ratio setting window; ⑤ is the animation size setting window; ⑥ is the animation file output window; ⑦ is the animation addition window. Functions and methods of use are explained as follow.

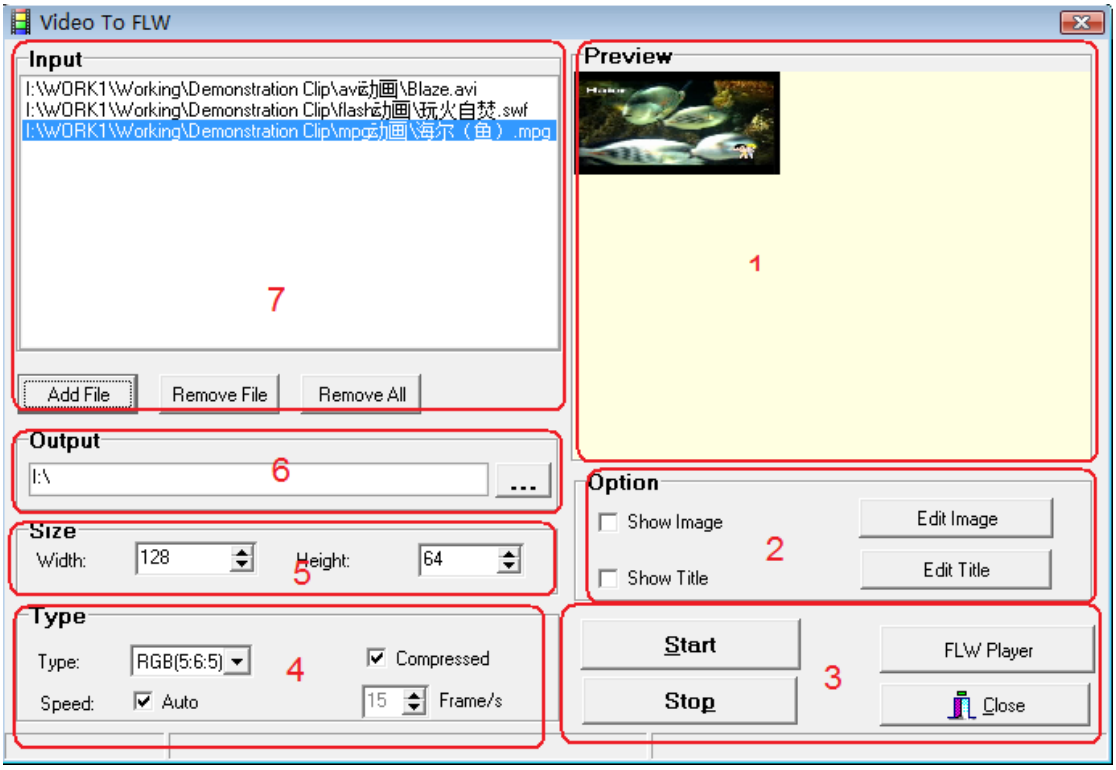


Figure 5.39 Video to FLW conversion interface

② Preview window：We can preview added animation files and FLW files.

② Modification window： Here we can set an image and title. These settings are for optimizing FLW files.

First let's look at the location for editing a picture or image. In the window, the coordinates X and Y represent the location picture or image in the FLW window as related to the upper left corner. Width and Height represent the size of the picture or image. If you like to, you can also tick Show Image and click Edit Image. There you can opt to choose placing the picture in the foreground of the FLW animation file. Finally, you need to select a path for saving the picture file.

Now let's set the title. The first line is "Character for title" and "Font and size for title". The second line is color of characters. The third line is font setting. And then there is title font editing area.

③ Animation file conversion and simulator display. Here to begin and stop conversion, to simulate display, and to close the window.

④ Conversion ratio setting window：The default setting is for width and height be to identical with those of the LED screen. We can change these value settings to play FLW animation files in our preferred way.

Selections	Descriptions
Width/Height	Can be changed. FLW animation files can be generated according to the width and height.
Mode	For single color animation, select 1：1. For 256 color animation files, select 8：8. For 16 bit color animation files, select 5：6：5. For 24 bit color animation, select 8：8：8. Selecting a proper mode can help save file storage size, speed up data transmission speed and achieve ideal display effect.
Preview window	Enlarge preview window

Speed(frame/sec)	You can use the default speed for normal use
Compress	If you compress a picture, the display quality will be degraded. If you do not compress a picture, the FLW file size may be too large.

⑤ Animation file output window：This is where you save the converted file.

⑦ Window for adding animation files: This is where you add the animation file which you want to add.

5.3.10 FLW Editor

Figure 5.3.1 shows a video editing window. You can edit a video file which is in the FLW format.

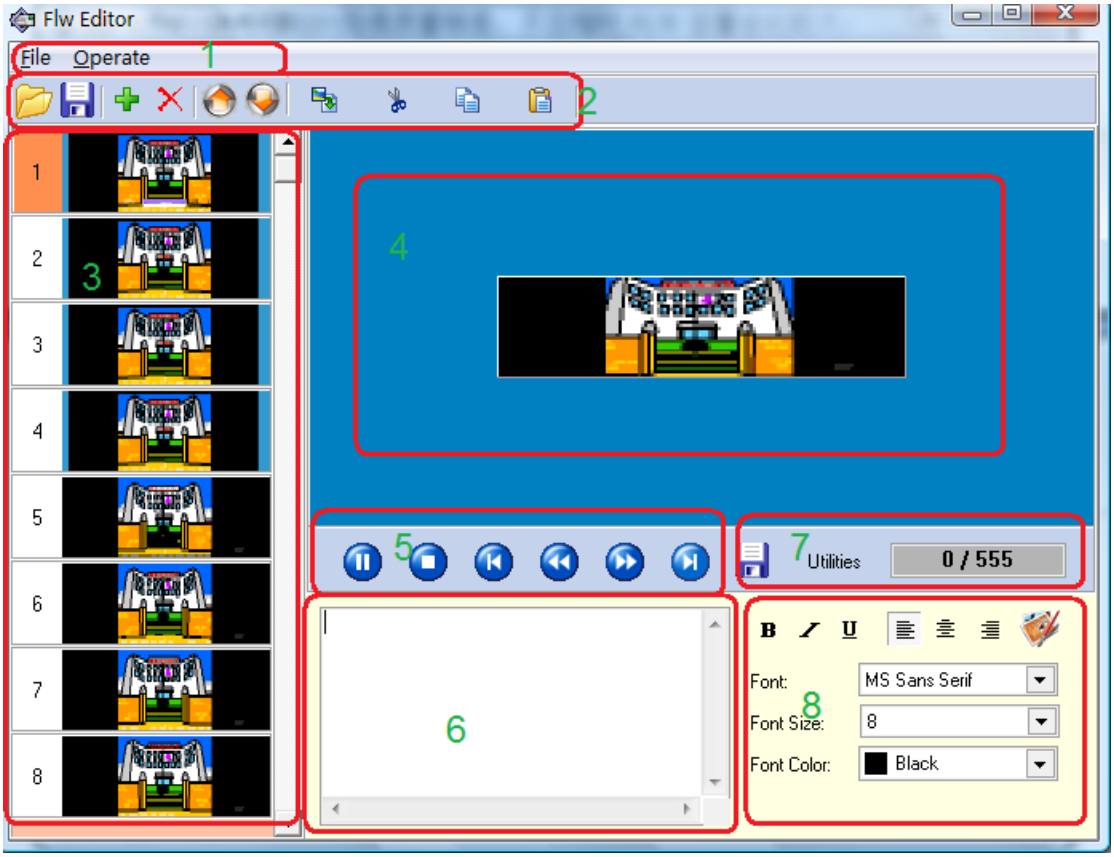


Figure 5.3.1

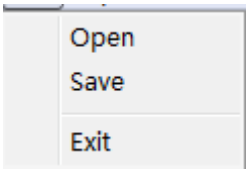
1) Menu Bar：

File Menu

Open: To open a video file；

Save：To save a video file；

Exit： To exit the system；

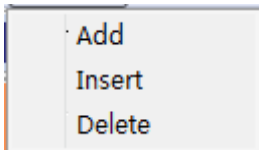


Operate Menu：

Add：To add a frame；

Insert：To insert a frame；

Delete：To delete a frame；



2) Icon Bar：

：To open a video file；

: To save a video file;

: To add a frame;

: To delete a frame;

: Move up; ;

: Move down;

: To insert a frame;

: Cut;

: Copy;

: Paste;

3) Video upload area

When the video file is added, it will be uploaded in the sequence of one frame after another.

4) Preview area

When a video file is being edited or played, a corresponding picture is displayed in the preview area.

5) Video control area

It can be used to control the play and stop of a video file.

6) Character editing area.

If you want to add characters to the video pictures, you can type characters in the editing area. You can see the typed characters in the preview area.

7) Saving characters.

: Save the edited characters in the current frame.

: Save the selected frame. See Figure 5.3.2;

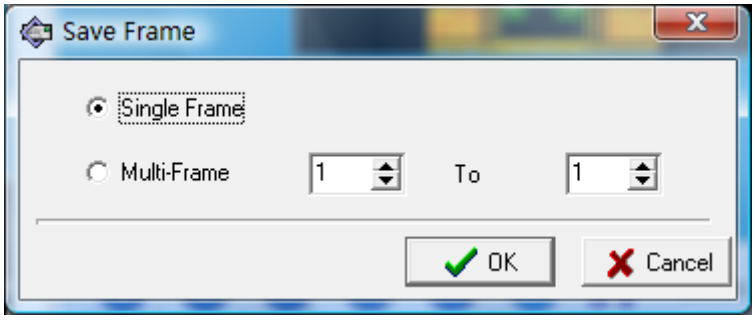


Figure 5.3.2

：Current frame/Total frames.

8) Character font area

：Bold

：Slanting

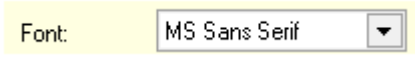
：Underline

：Align to left

：Align to middle

：Align to right

：Frame editing



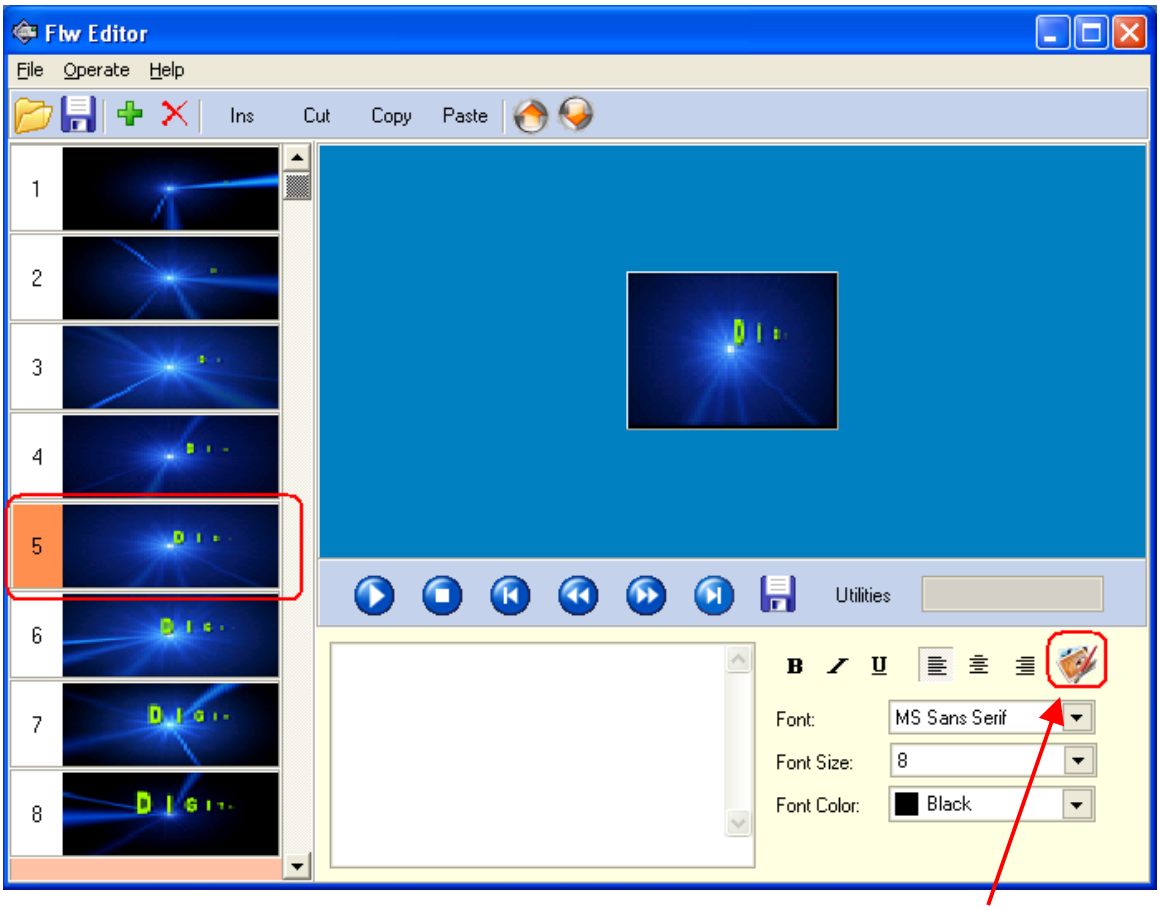
：Font

：Font size

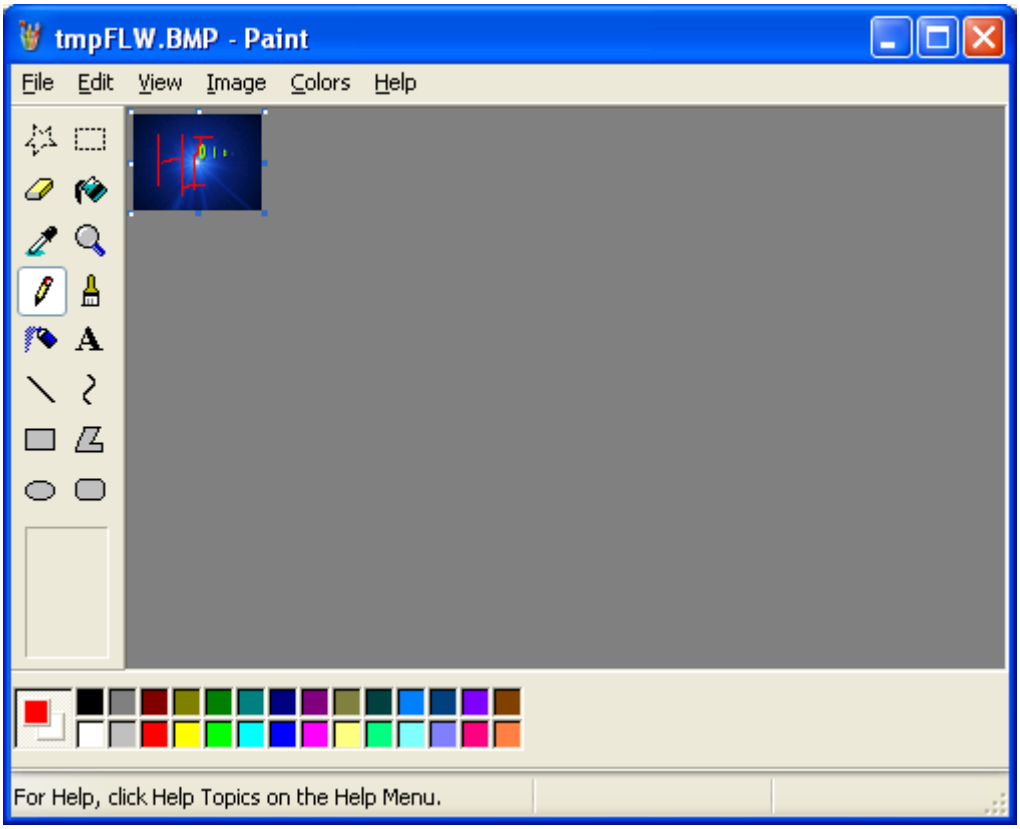
：Font color.

9）Animation editing

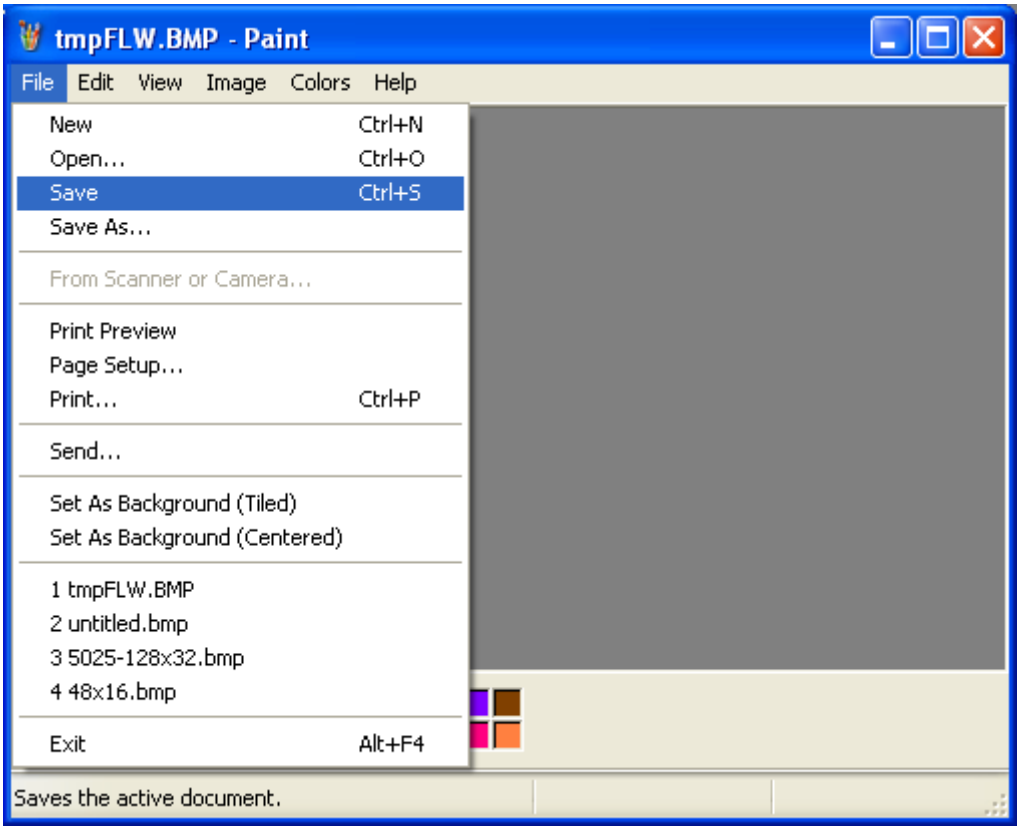
Select a frame



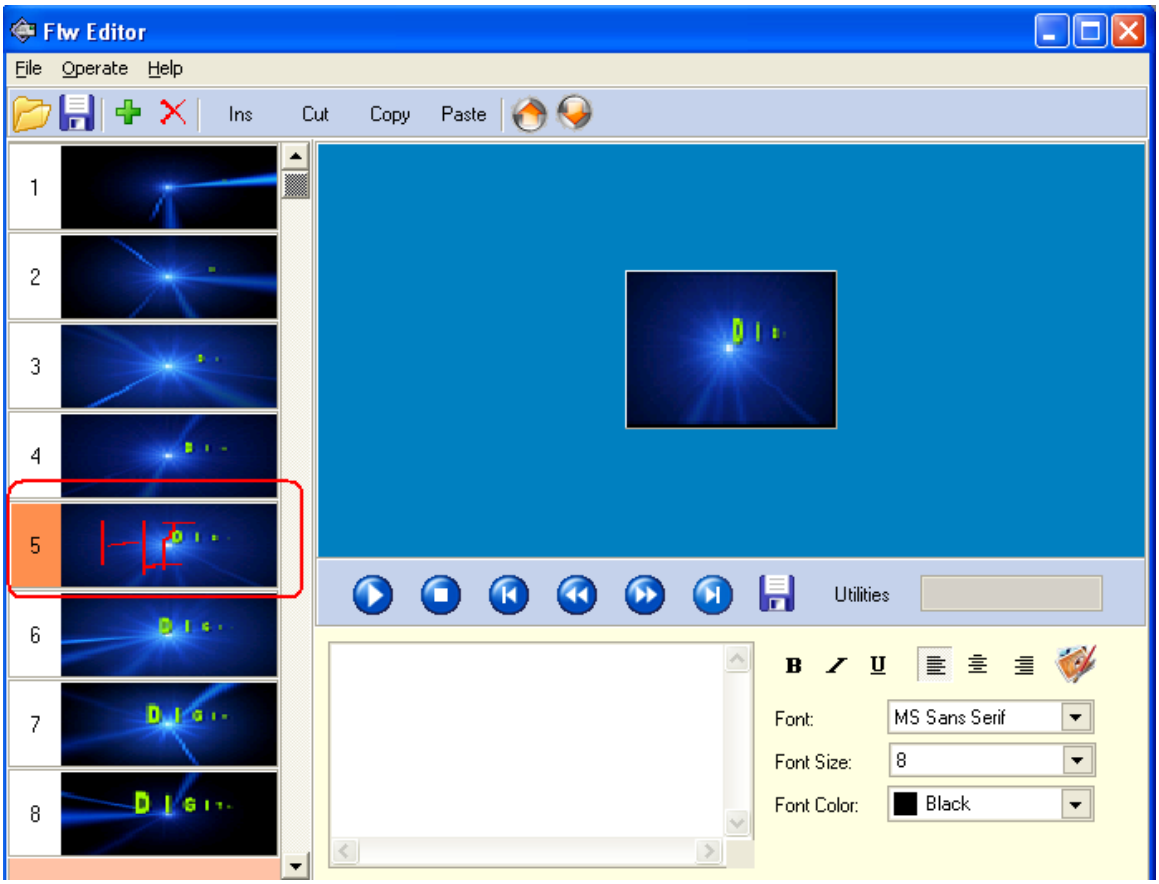
Now you will see the following picture. You can edit the animation frame in the window.



Now please save it.


tmpFLW.BMP - Paint
File Edit View Image Colors Help
New Ctrl+N
Open... Ctrl+O
Save Ctrl+S
Save As...
From Scanner or Camera...
Print Preview
Page Setup...
Print... Ctrl+P
Send...
Set As Background (Tiled)
Set As Background (Centered)
1 tmpFLW.BMP
2 untitled.bmp
3 5025-128x32.bmp
4 48x16.bmp
Exit Alt+F4
Saves the active document.

Completed!!


Flw Editor
File Operate Help
Ins Cut Copy Paste
Utilities
Font: MS Sans Serif
Font Size: 8
Font Color: Black

5.3.13 Picture Resizer

Picture Resizer is to convert the picture of any size to BMP picture in a designated size.

Fig.5.40 is the interface of Picture Resizer.

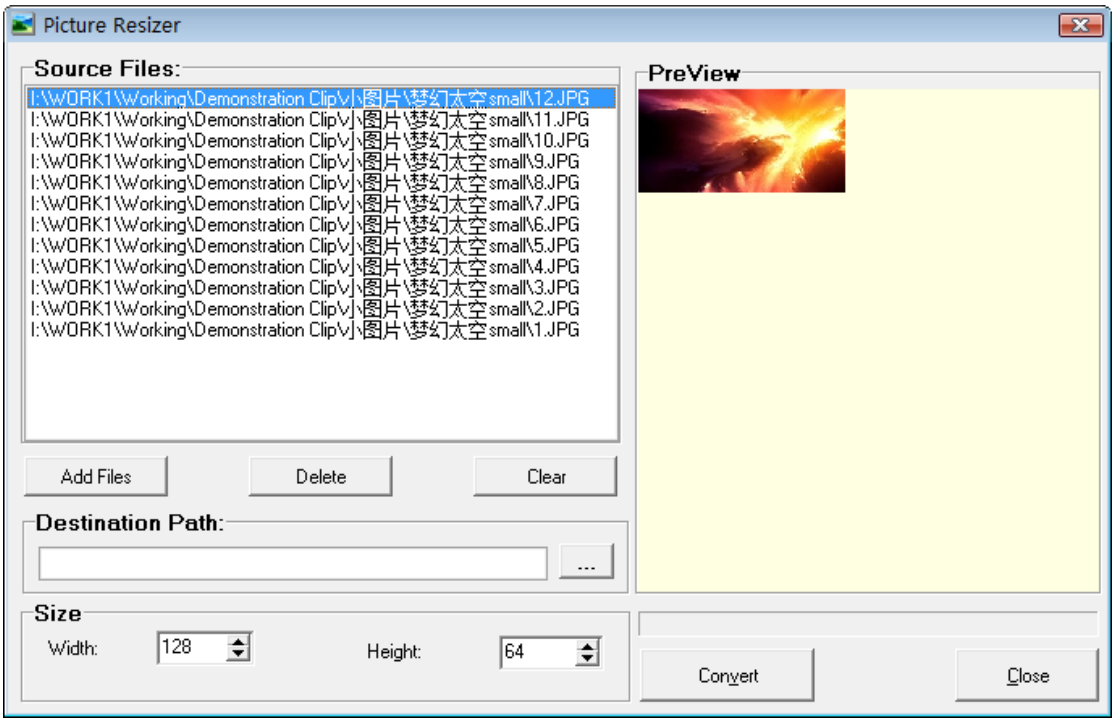


Fig. 5.40 Interface of Picture Resizer

Step 1: Add picture file, the valid formats are BMP, JPG, JPEG, GIF, ICO, EMF, and WMF;

Step 2: Choose the saving path of the converted file;

Step 3: Set the width and height of the designated picture;

Step 4: Click and the converting will start. In Fig.5.41, the indication window appears when the converting finishes.

Fig. 5.41 The converting finishes

5.3.14 COM TEST

COM TEST is to test whether the com port communication of the local computers are normal or not.

Fig.5.42 is the interface of COM TEST.

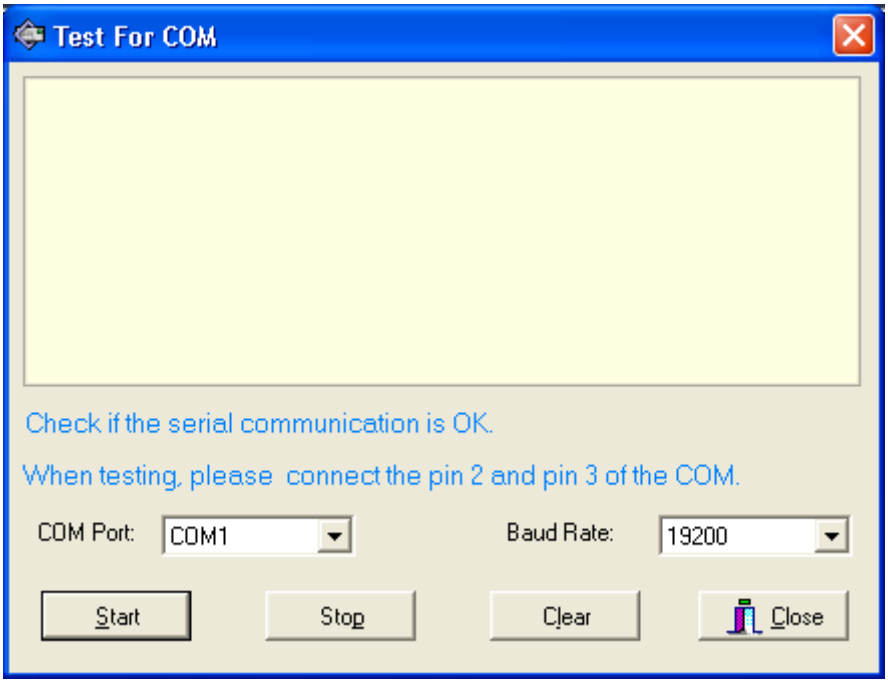


Fig. 5.42 Tool for Com Port test

According to the indication of the interface, when testing, please connect the Pin2 and Pin3 of the COM, and click Start. Then COM 1 will be tested. User can test other serial ports by choosing other COM ports in the column “COM Port”.

In Fig.5.43，if it shows Communication OK，it means the com port of the local computer is no problem.

Otherwise, if it shows Request time out like Fig.5.44，there is some problem with the serial port of the local computer.

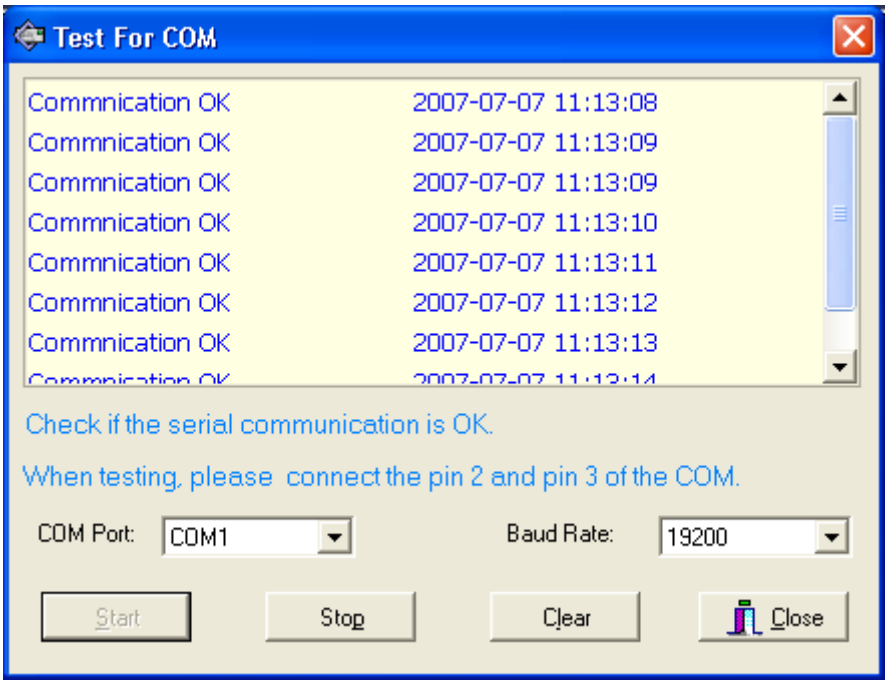


Fig. 5.43 Communication OK

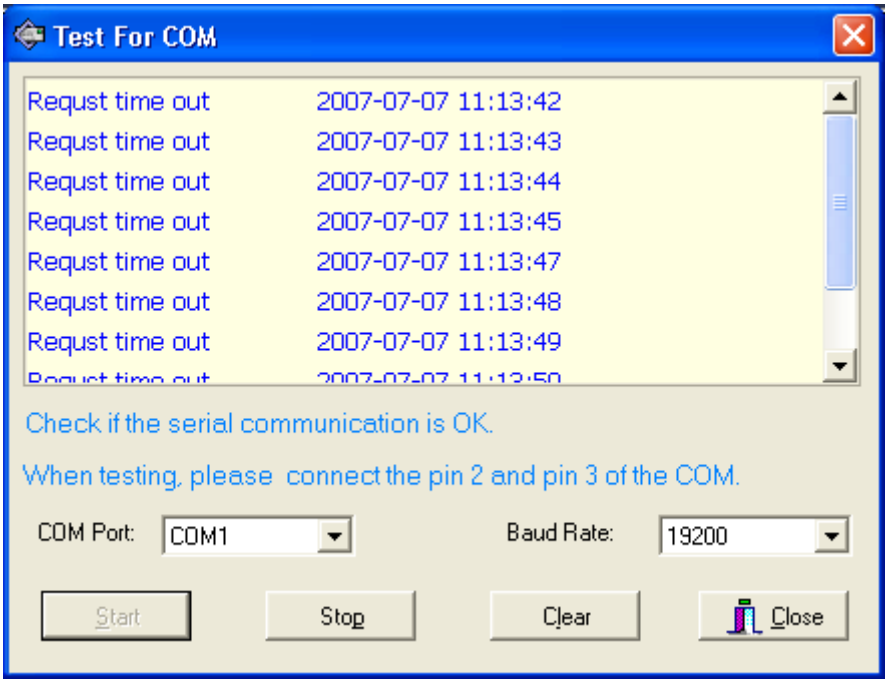

Test For COM
Requst time out 2007-07-07 11:13:42
Requst time out 2007-07-07 11:13:43
Requst time out 2007-07-07 11:13:44
Requst time out 2007-07-07 11:13:45
Requst time out 2007-07-07 11:13:47
Requst time out 2007-07-07 11:13:48
Requst time out 2007-07-07 11:13:49
Check if the serial communication is OK.
When testing, please connect the pin 2 and pin 3 of the COM.
COM Port: COM1
Baud Rate: 19200
Start
Stop
Clear
Close

Fig. 5.44 Communication fail

5.3.15 Send Files Tool

The function of Send Files Tool is to send the designated file to the appointed sign in a certain time period.

Fig.5.45 is the interface of Send Files. We will introduce how to make the setting of sending files at a certain time period.

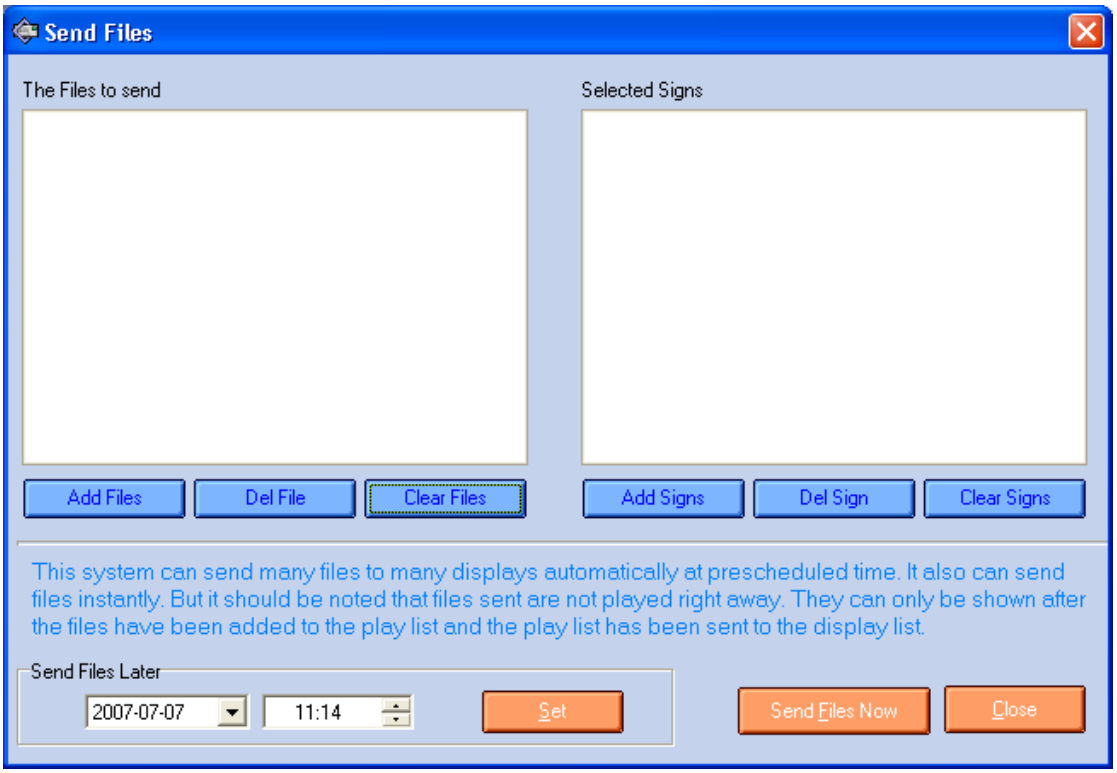

Send Files
The Files to send
Selected Signs
Add Files
Del File
Clear Files
Add Signs
Del Sign
Clear Signs
This system can send many files to many displays automatically at prescheduled time. It also can send files instantly. But it should be noted that files sent are not played right away. They can only be shown after the files have been added to the play list and the play list has been sent to the display list.
Send Files Later
2007-07-07
11:14
Set
Send Files Now
Close

Fig. 5.45 Interface of Send Files (1)

Step 1: Click

, add the appointed files to “The Files to send”, these files

can be in the format of NMG, PMG, BMP, JPG and JPEG etc..

Step 2: Click Add Signs, add the designated LED sign to “Selected Signs”; As Fig.5.46 shows, click >> in the window of Choose Signs, then all the signs on the left will be added to the right column, then click OK.

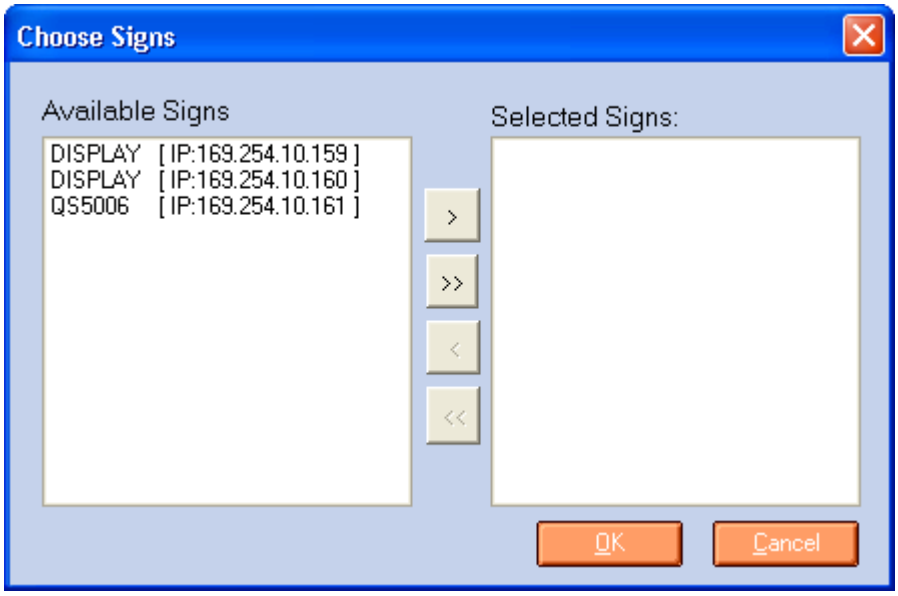


Fig. 5.46 Choose Signs

When the user finishes adding files and choosing signs, the window in Fig.5.47 will appear.

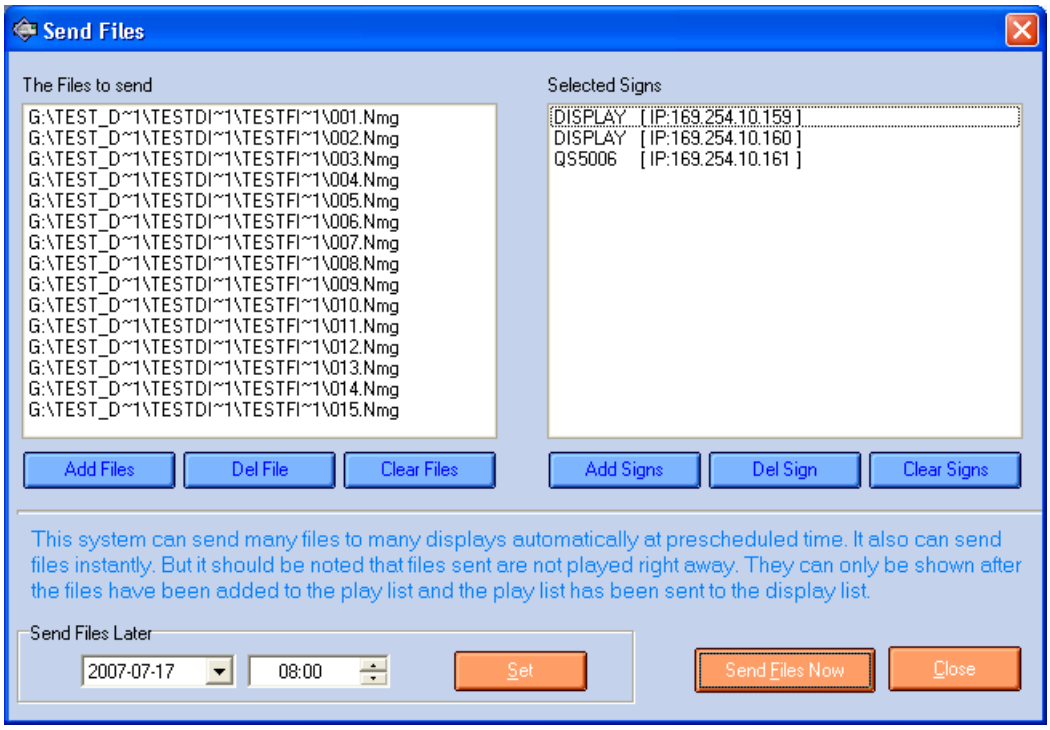


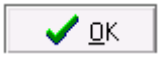
Fig. 5.47 Interface of Send Files (2)

Step 3: Set the time of sending and click Set, then a clock icon will appear in

the taskbar of the computer like Fig.5.48. It is counting down and when it goes to the pre-scheduled time, the files will be sent.

Fig. 5.48 Down-counter for sending files

Note: when it is counting down to send the files, Sigma software can not be closed, otherwise the count-down clock will disappear immediately. The computer can not be turned off either. After the file is sent to the designated sign, it will not be displayed right away because there is no File list in the files which have been sent. The LED sign will only display File List. Then we need to do the following to make the files displayable.

Step 4: Display the designated file which has been sent. Open the Sigma software, enter List Manage as shown in Fig.5.49，and click ，then the Play List Files like Fig.5.50 appears, choose “Add Files From Sign”, and another window like Fig.5.51 will appear. In this window, user can choose the designated files to display. The files ticked are added into the File Display List. After choosing display files, click 

, then we can see the added files in Play List Files as shown in Fig.5.52. At last, click

, the Play list will be sent to the LED sign, then the LED sign will display these files.

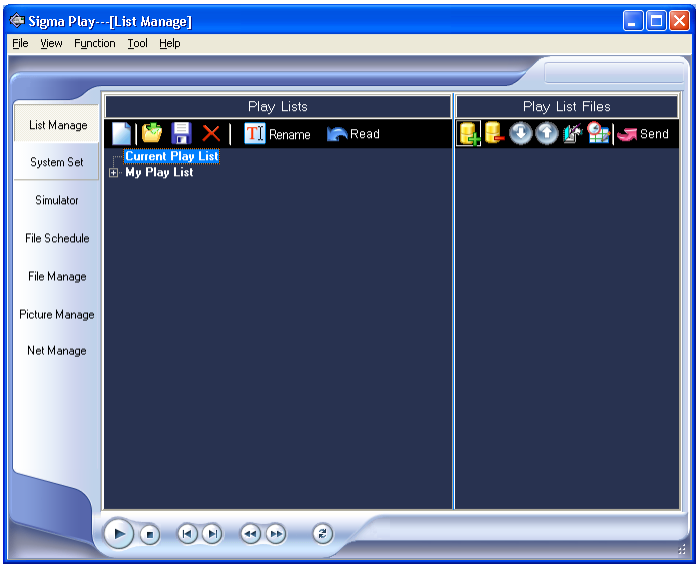


Fig. 5.49 List Manage

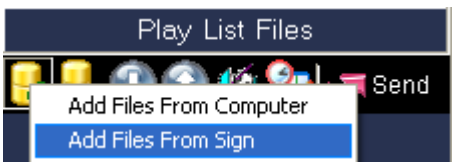


Fig. 5.50 Add List

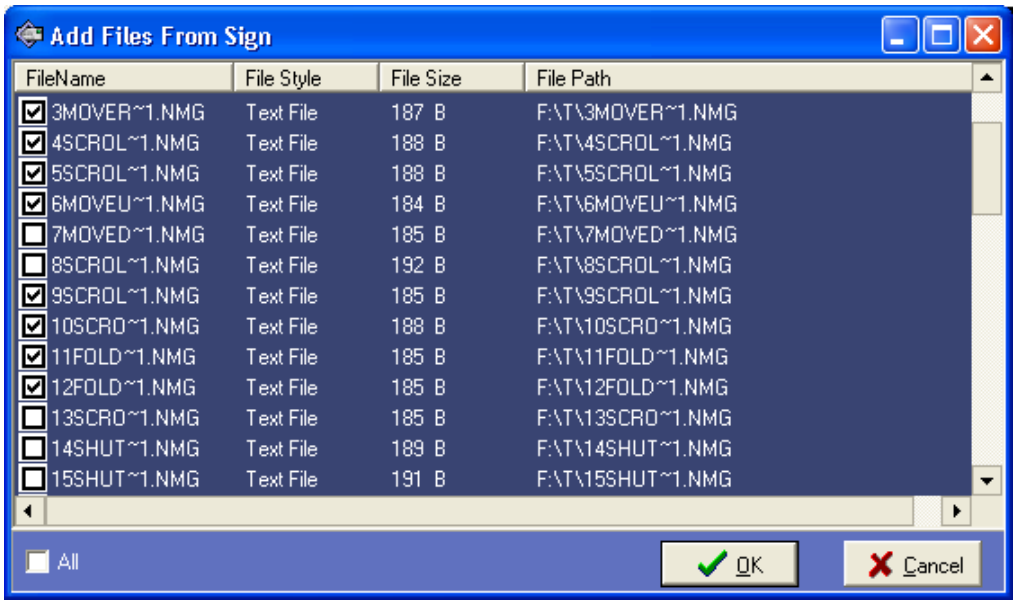

Add Files From Sign
FileName
File Style
File Size
File Path
3MOVER~1.NMG Text File 187 B F:\T\3MOVER~1.NMG
4SCROL~1.NMG Text File 188 B F:\T\4SCROL~1.NMG
5SCROL~1.NMG Text File 188 B F:\T\5SCROL~1.NMG
6MOVEU~1.NMG Text File 184 B F:\T\6MOVEU~1.NMG
7MOVED~1.NMG Text File 185 B F:\T\7MOVED~1.NMG
8SCROL~1.NMG Text File 192 B F:\T\8SCROL~1.NMG
9SCROL~1.NMG Text File 185 B F:\T\9SCROL~1.NMG
10SCRO~1.NMG Text File 188 B F:\T\10SCRO~1.NMG
11FOLD~1.NMG Text File 185 B F:\T\11FOLD~1.NMG
12FOLD~1.NMG Text File 185 B F:\T\12FOLD~1.NMG
13SCRO~1.NMG Text File 185 B F:\T\13SCRO~1.NMG
14SHUT~1.NMG Text File 189 B F:\T\14SHUT~1.NMG
15SHUT~1.NMG Text File 191 B F:\T\15SHUT~1.NMG
All
OK
Cancel

Fig. 5.51 Add List File

Fig. 5.52 Play List Files

5.3.16 Dial-up

Dial-Up provides users a communication channel through telephone, then long distance communication is realized. It is useful for the users in the areas where internet is not available.

Fig.5.53 is the interface of Dial-Up, telephone number, communication Com Port of the local computer, and the communication Baud Rate of the LED sign's Com Port.

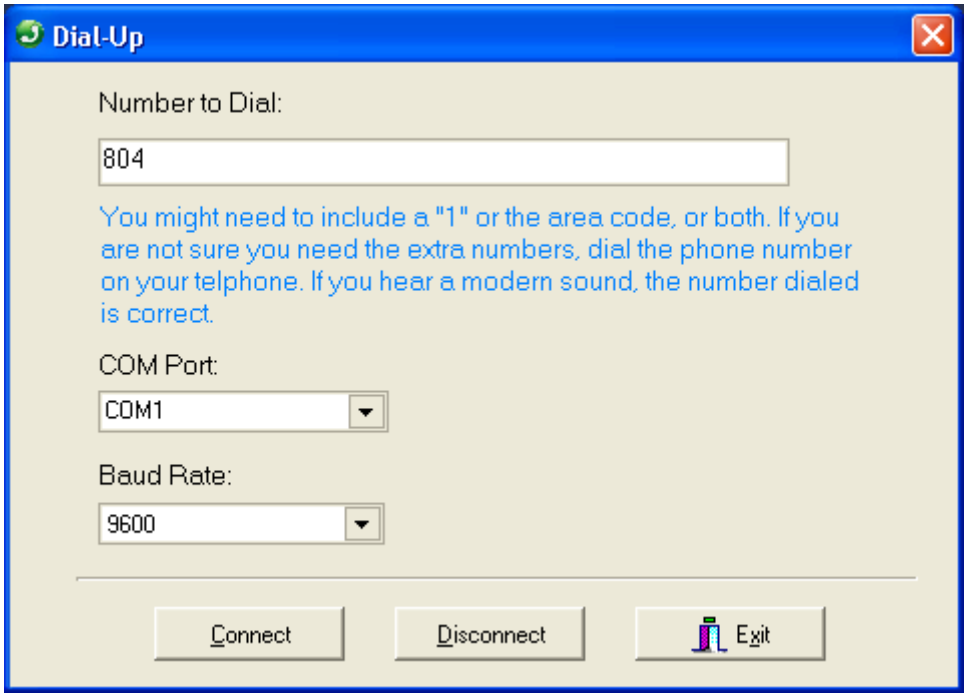

Dial-Up
Number to Dial:
804
You might need to include a "1" or the area code, or both. If you are not sure you need the extra numbers, dial the phone number on your telphone. If you hear a modern sound, the number dialed is correct.
COM Port:
COM1
Baud Rate:
9600
Connect
Disconnect
Exit

Fig. 5.53 Dial-Up

To realize Dial-Up connection, Modem and the required communication cables are needed. Please see Fig.5.54 for the connection diagram.

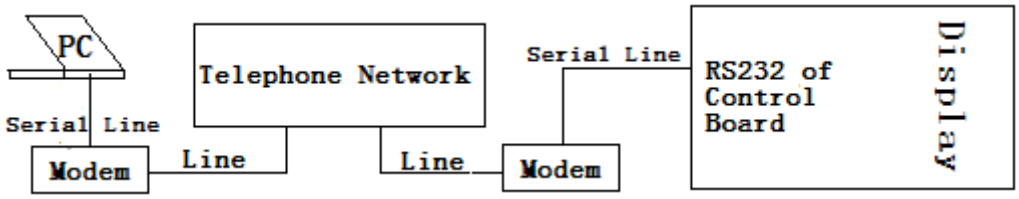


Fig. 5.54 Connection diagram of Dial-Up

Click Connect and Dial-Up connection begins. When the connection is successful, we can use that channel to communicate with the sign. Since we use COM1 for the connection, we choose COM1 for the communication with the sign as shown in Fig.5.55.

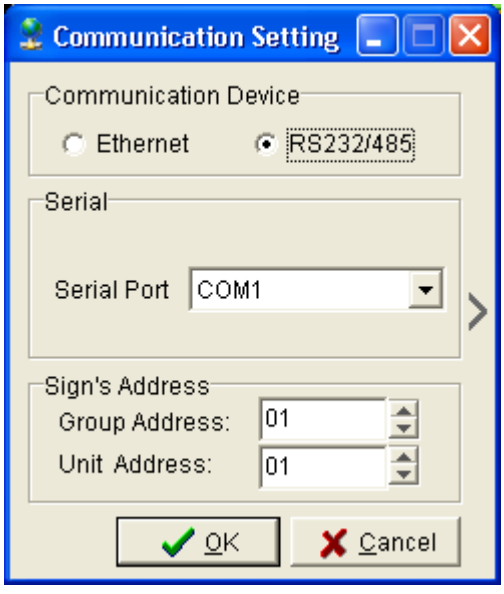


Fig. 5.55 Choose COM1 for Communication

5.3.17 Update

There are 5 tools in Update, they are CPU Update, FPGA Update, Palette Update, Create Update Package and Update Wizard. These tools are used to update the sign, and only the Administrator can do the operation.

①CPU Update

We use this function when we need to update the CPU of the sign. Fig.5.56 is the interface of CPU Update. Only the files with cpu as suffix can be updated. Click the button Send and the update begins. After the update finishes, please wait for about 1 minute. Then turn off the sign and reboot it, the CUP has been updated to the control card of the sign.

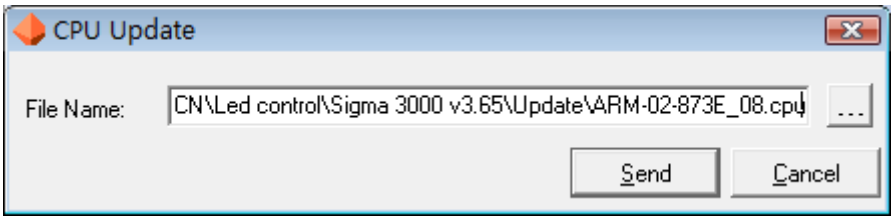


Fig. 5.56 CPU Update

②FPGA Update

When updating FPGA, user must choose the FPGA program which is suited with the LED sign. Otherwise, the sign will display randomly or display nothing, the worst situation is the control card may be burnt. Fig.5.57 is the interface of FPGA Update. Only the files with PGA as the suffix can be updated, click Send and the update begins.

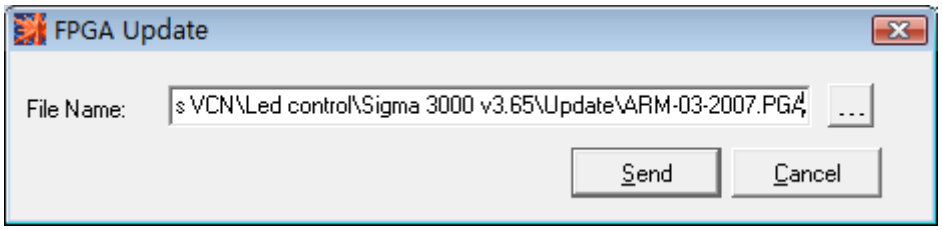


Fig. 5.57 FPGA Update

③Palette Update

Pallet Update is to send the palette to the sign. Palette may lose because of some unsuitable operation to the sign, as a result, some colors can not be shown on the sign. Then we need to send the pallet to the sign. Fig. 5.58 is the interface of Palette Update. It is seldom that the Palette would lose and palette is included in CPU, so Palette Update will be used only in special case.

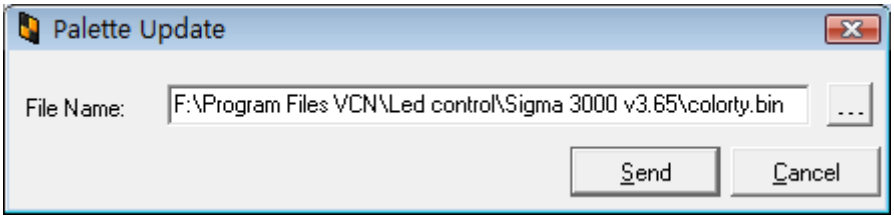


Fig. 5.58 Palette Update

④Create Update Package

Create Update Package is to combine CPU file, FPGA file, Palette file and Gamma file together and make an Update Package. Fig.5.59 is the interface of Create Update

Package, users can choose files according to their needs to make the package. Please tick the files needed and click OK.

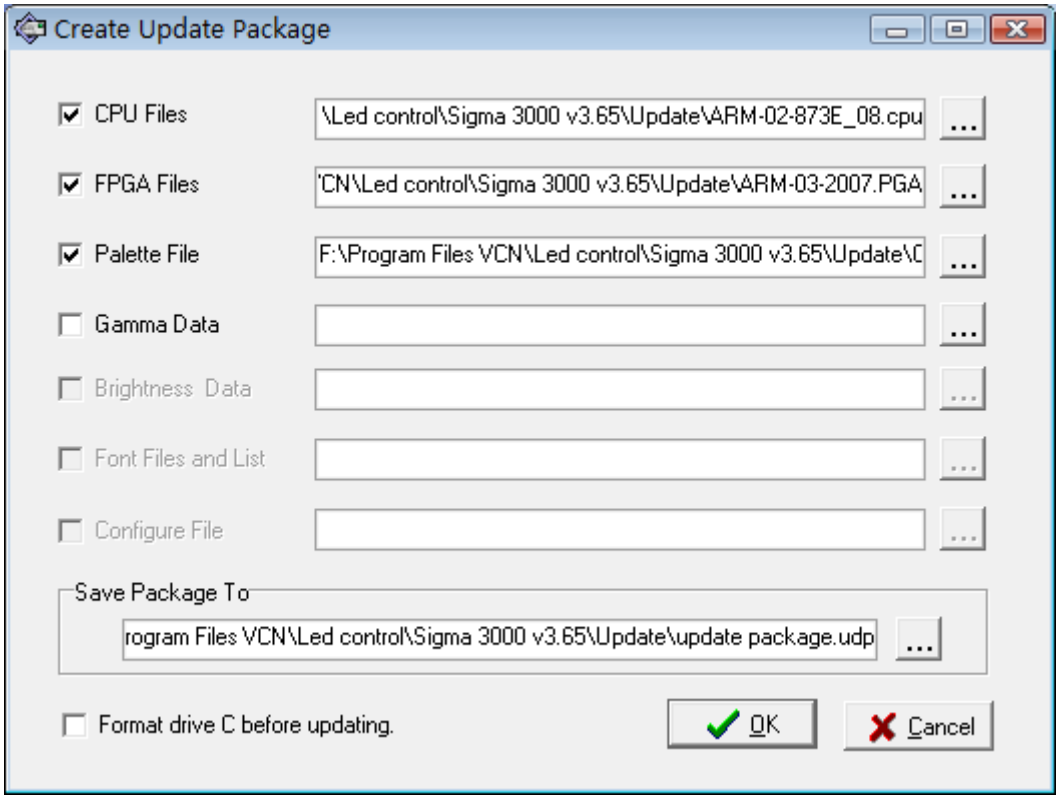


Fig. 5.59 Create Update Package

Suggestion: the update package is used only for updating the system from all aspects. Otherwise, it is not suggested to update with package since the efficiency of updating with package is low, what's more, palette and Gamma files are already included in CPU.

⑤Update Wizard

Please see Fig.5.60, Update Wizard is to update the package above. Please choose the correct communication device and address in the left columns, the right column will show the update files in the package. Click Update, and it starts.

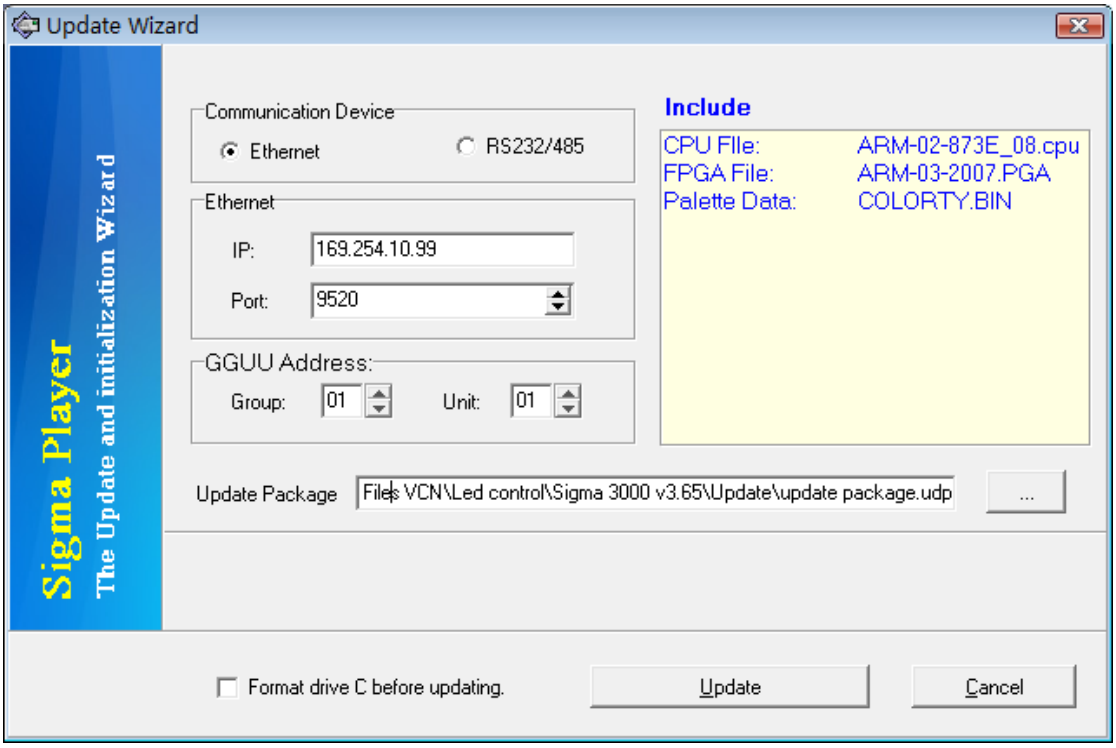


Fig. 5.60 Update Wizard

Fig.5.61 shows the update progress and the current updating CPU program.

Fig.5.62 shows the CPU update has finished, but we have to wait for the display to reset; now we can reset the display manually.

As shown in Fig.5.63, an indication window will appear after the display is reset, click **Yes** and the FPGA update begins.

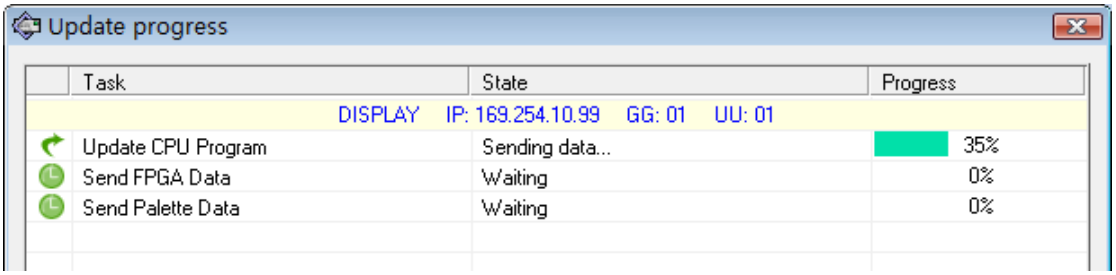


Fig. 5.61 Update Progress

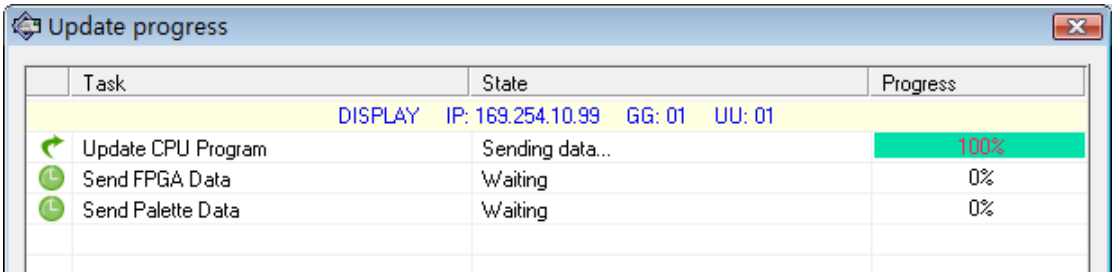


Fig. 5.62 CPU update finishes

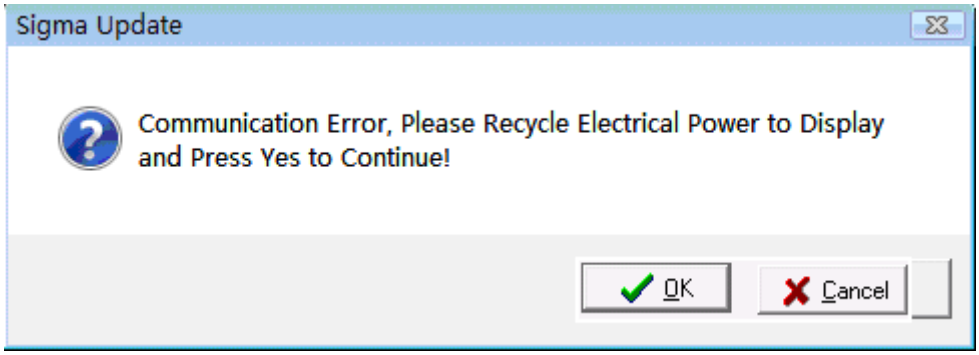


Fig. 5.63 Resent the display and continue

After the FPGA update finishes, another indication window like Fig.5.63 will appear, now we don't need to reset the display, click Yes and the update will continue.

As shown in Fig.5.64，all the update tasks are completed successfully.

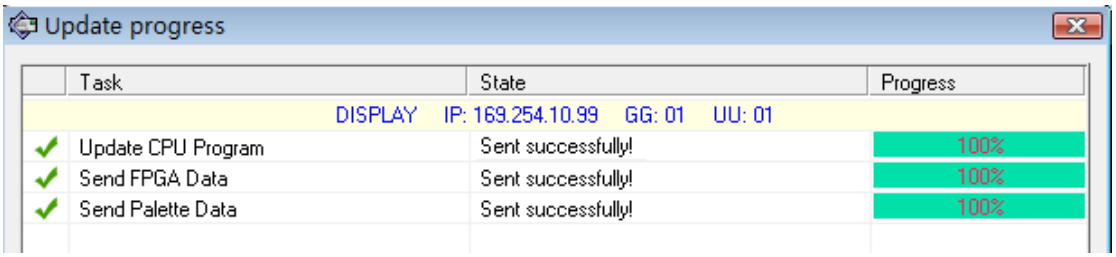


Fig. 5.64 Task completed

5.4 Help Menu

There are two options in the Help Menu. One is the edition information about Sigma software, and the other is this Manual.

As shown in Fig 5.65, this window is the edition information about Sigma software.

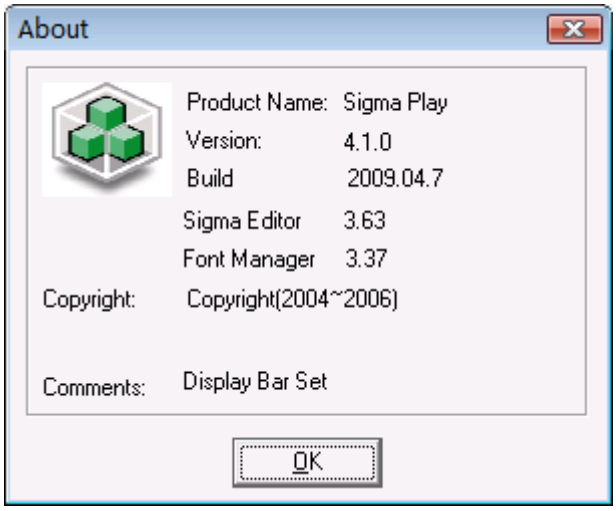


Fig. 5.65 About

Chapter 6 Shortcut Panel of Sigma Software

The shortcut panel is an important part of the Sigma software, so it is necessary to explain the shortcut panel in detail as a chapter.

6.1 List Manage

List manage is a tool to manager play files and play lists. Using List Manage properly will be helpful to improve the sending efficiency of display files.

As shown in Fig 6.1, this is the interface of List Manage Panel. The left part is the management area of play list, and the right one is the management area of play files.

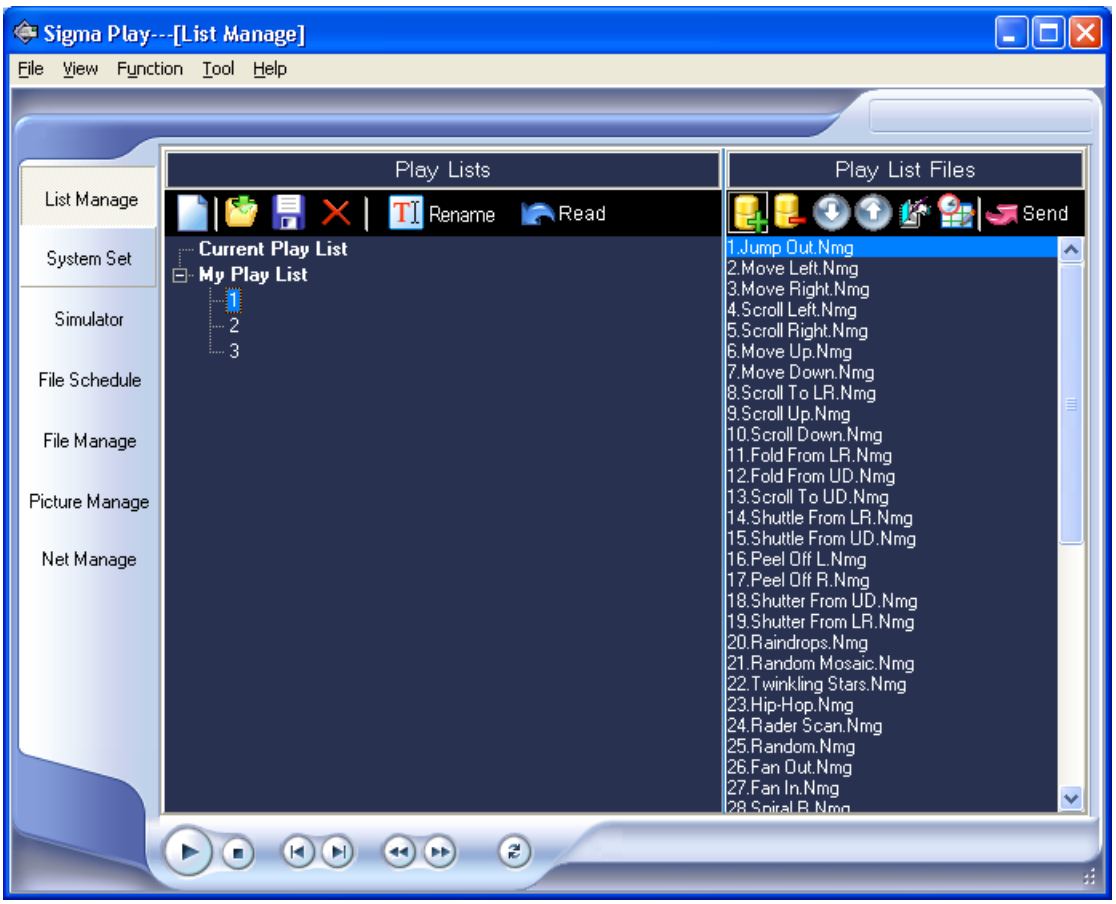


Fig. 6.1 List Manage Panel

: To create a new play list;

: To open a file of the play list;

: To save a play list;

: To delete a play list;

Rename: To rename a play list;

: To read the play list on the sign;

: To add the play file from the computer or LED sign;

: To delete the play file;

: To move down the play file;

: To move up the play file;

: To edit the play file; if the NMG file is selected, the Sigma Editor will be opened for editing; if the PMG file is selected, the True Font Editor will be opened for editing; if the BMP file is selected, the Picture Editor of Windows will be opened for editing;

: To switch to File Schedule;

: To send the play file and list immediately.

Note: The maximum amount of files added to the play list is 128. If the file amount exceeds 128, the control board can’t play this list.

6.2 System Set

Only the administrator can operate the function of sending in System Set. The common users can just read the configuration information, but can’t modify the configuration of the display.

As shown in Fig 6.2, this is the interface of System Set. In this panel, some characters in some columns are covered by light yellow color, which means that information can be read but can’t be modified.

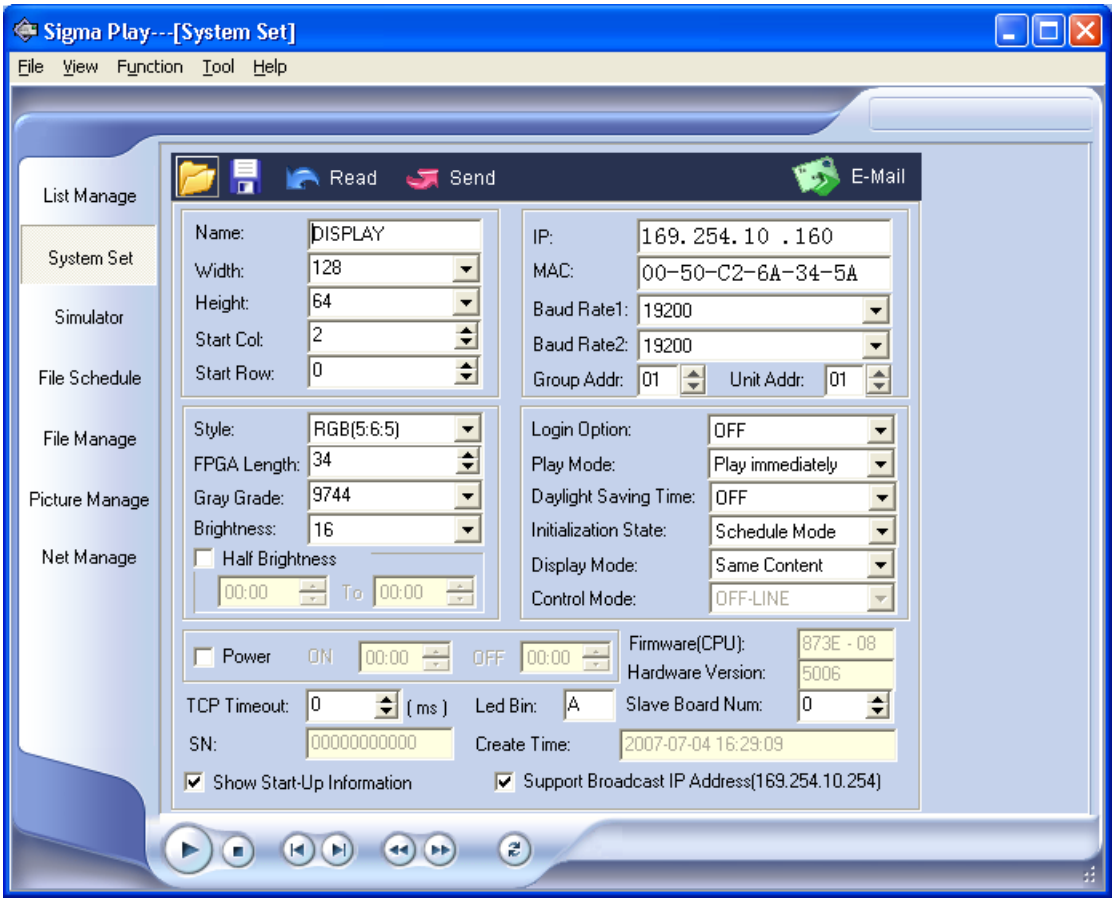


Fig. 6.2 Interface of System Set

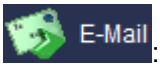
Firstly, let's talk about the functions of the above buttons:

: To open the configuration file with the suffix of dat;

: To save the current setting;

: To read the configuration of the display;

: To send the current setting to the display;

 : To send through E-mail, it is a shortcut for "Email" in the Function Bar.

The following explains in detail the functions and meanings of other items in the System Set.

a. Name:

It shows the name of the display. And the name can be modified here.

b. Width:

It shows the width of the display. The value is set in accordance to the width of the display.

c. Height:

It shows the height of the display. The value is set in accordance to the height of the display screen.

d. Start Col:

It is the setting for the Start Column of the display. The value of the Start Column of QS5006 main board is 2. And if the value is set to be 1, the first Column of the display will display abnormally (The first Column is counted from the right side). And the value of other main board is set according to the actual situation.

e. Start Row:

It is the setting for the Start Row on the display. The value is 0 usually.

f. Style:

It is the style options of the display. It is decided by the actual use of display. E.g. the RG bi-color indoor display can't be set as the 8:8:8 Style. The setting is in detail as the following table:

Style	Usage
1:1	For display with single color shade, it is used with QS0712 main board with 4000 FPGA program
8:8	For the RG bi-color display
5:6:5	For the outdoor full color display
8:8:8	For the outdoor full color display

g. FPGA Length:

The calculation formula of FPGA Length as the following table:

Display / Mode / Value	8:8:8 4bytes	5:6:5 or 8:8 2bytes	1:1 2bits
FPGA Length	>= Actual width of the screen /4 + 2	>= Actual width of the screen /8 + 2	>= Actual width of the screen /16 + 2

E.g.: the size of the display is 96*256, its value of FPGA Length is as the following table.

Display / Mode / Value	8:8:8 4bytes	5:6:5 或 8:8 2bytes	1:1 2bits
FPGA Length	**>= 256/4 + 2 That is >= 66**	**>= 256/8 + 2 That is >= 34**	**>= 256/16 + 2 That is >= 18**

h. Gray Grade:

The setting relationship between Gray Grade and FPGA Length is as the following table:

Style	1:1	8:8	5:6:5	8:8:8
FPGA Length(L)	L>Width of the screen/16	L=Width of the screen/8+2, L minimum is 18	L= Width of the screen /4+2， L minimum is 34	
Gray Grade	3076	2564	4872, 6152, 9744	

i. Brightness:

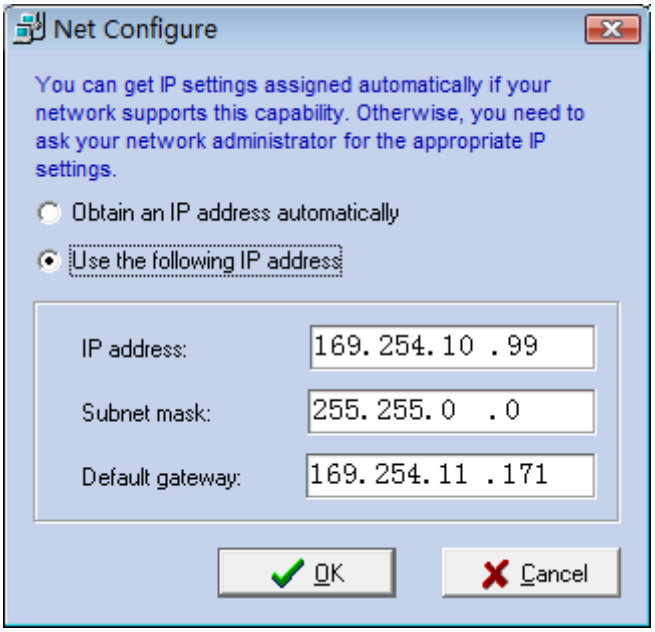
It is the setting of the screen brightness. Auto is automatic brightness (it is only available for the screen equipped with a brightness sensor). 1～128 is the value for manual setting. This brightness setting here is different from the brightness adjustment in the Tool Bar. The brightness adjustment just adjusts the brightness roughly, and it will

not affect the white balance of the screen. But brightness setting adjusts the brightness accurately and improves the white balance.

j. IP:

It is for changing the IP address of the screen, user can input the expected IP address here.

After the IP address, there is the icon . You can click it to enter configure for network.


Net Configure
You can get IP settings assigned automatically if your network supports this capability. Otherwise, you need to ask your network administrator for the appropriate IP settings.
Obtain an IP address automatically
Use the following IP address
IP address:
169. 254. 10 . 99
Subnet mask:
255. 255. 0 . 0
Default gateway:
169. 254. 11 . 171
OK
Cancel

If the local network supports automatic IP function, you can select “Obtain an IP address automatically”. Then an IP address will be assigned to every LED display on the net.

k. MAC:

It is used for checking the MAC address of the display, but MAC address can’t be modified here. If this MAC address is changed, the setting being sent is invalid, and the read-back configuration information is still the former MAC address. There is another special tool to set the MAC address.

l. Baud Rate1:

It is used to set the communication Baud rate of Com port 1 in the display.

m. Baud Rate2:

It is used to set the communication Baud rate of Com port 2 in the display.

n. Group Addr:

It is used to set the GG address of the display. The GG address is also called Com port group address.

o. Unit Addr:

It is used to set the UU address of the display. The UU address is also called Com port unit address.

p. Login Option:

It is used to set whether it needs to login before communicating with the hardware. When this option is on, users have to login before communication.

q. Play Mode:

There are two play modes: Immediate-play mode and Awaiting-play mode. When the

display screen is playing a file and the user sends a new play file to the screen, for the Immediate-play mode, the playing file will be paused and the new one will be played; as for the Awaiting-play mode, the new one will not be played until the current file finishes.

r. Daylight Saving Time:

It is used to set the summer time. When it is on, the time of screen will self-adjust according to the summer time, and when it is off, the time won't adjust according to the summer time. The summer time adjustment will automatically add one more hour at zero o'clock on the morning of the second Sunday in March every year, then automatically reduce one hour at zero o'clock on the morning of the first Sunday in November every year.

s. Initialization State:

There are three optional settings in the initial status of the screen: .

Schedule mode: When the display is in this mode, the information displayed in the screen is played according to the file schedule. This is a default mode in the system.

Continuous display: It is the mode for displaying Ticker files.

Head-tail display: All files sent to the list of the screen are connected and played circularly without pause.

t. Display Mode:

There are two options in this mode. One is displaying the same content, the other is displaying different content. Their usages are as the following table:

Display Mode	QS5006		QS0712
Number of the slave boards	Single control board	Main board and slave board	Single control board
Same content	P1-P4 same as P5-P8	Different panels display the same content	P1 port and P2 port display the same content
Different content	Play normally	Different panels display independently	P1 port and P2 port display independently

u. Control Mode:

There are two options in this mode. One is VGA mode, the other is Off-line mode. Only QS0712 and QS5003 main board can support the VGA and Off-line modes. The default value of other main boards is Off-line mode.

v. TCP Timeout:

It is used to control the communication connection of the display effectively. If the value of TCP Timeout is 3 seconds (equal to 3000 milliseconds), the communication chain between PC and the display screen is connected in this 3 seconds. If the time exceeds 3 seconds, the communication chain will be disconnected automatically. Then the chain should be reconnected before communicating with the screen. If the communication distance is far, it maybe takes a long time to reconnect the communication chain.

w. Led Bin:

It is used to define the style of display modules by the user. This bar only can be input one character which classifies the display modules. E.g. the user can input A to sort the

display of 1/2 scanning into A class, input B to sort the screens of 1/4 scanning into B class, and so on. Therefore, the user can define the modules as he likes.

x. Slave Board Num:

It is used to set the number of the slave boards in the display. E.g. the main board is QS5006 and the maximum amount of the slave board is seven. And the connection of this hardware is as the following Fig 6.3.

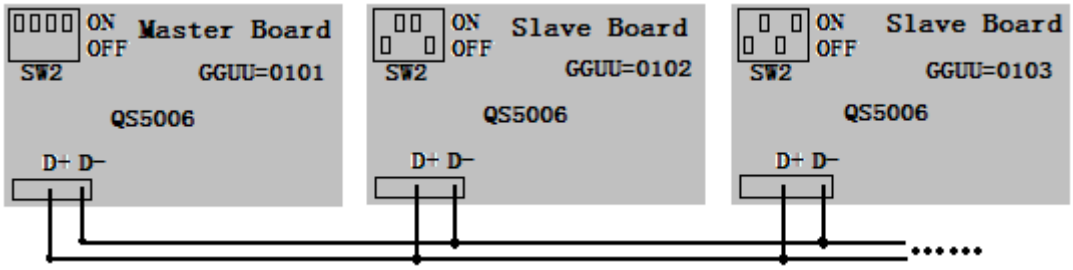


Fig. 6.3 The connection of the main and slave boards

y. Half Brightness

It is used to set the time period of half brightness of the display screen.

E.g. 08:00 到 18:00, it sets the duration of half brightness from 8:00 to 18:00.It means that the screen will start being in the half brightness status from 8:00 to 18:00.Then after that, the screen will be all bright.

z. Power

It is used to set the ON/OFF time of the display.

E.g. ON 08:00 OFF 18:00, it means the sign will be on at 8:00 and will display files; and the sign will be off at 18:00, and the screen is black—display nothing..

Note: This switch is not the switch of the hardware. It is the operation on the software. The power supply of the screen is still on, the control board is still working.

aa. Firmware(CPU):

It is used to read the CPU edition number of the display.

bb. Hardware Version:

It is used to read the hardware edition number of the display.

cc. SN:

It is used to read the serial number of control board of the display.

dd. Create Time:

It is used to read the written-in time of system parameter in the control board.

ee. Show Start-Up Information

It is used to set whether to show the start-up information. If it is ticked, it means that when the display is turned on every time , the start-up information will be shown..

ff. Offset Position: PC: X = 0 Y = 0

You can modify it only under control mode.

6.3 Simulator

The simulator is for the users to preview the display files.

As is shown in the Fig 6.5, the Simulator supplies a window for previewing play files.

Through it, the users can know the effect of the play files which will be sent to the display screen. This function supports the display simulation of NMG, PMG, BMP, ICO, JEG, JPEG, FLW, GIF, WMF and EMF files. The buttons as Fig 6.4 can control the play of the simulation. And at the same time if the screen is connected with Sigma, the buttons can simultaneously control the play status of the screen.

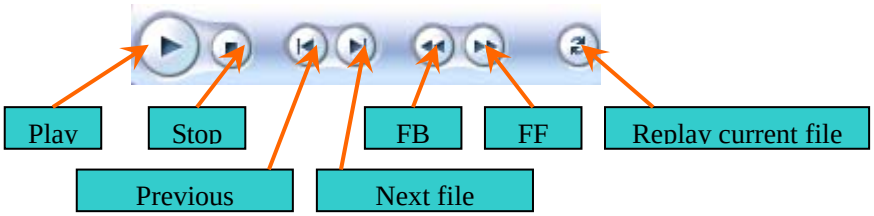


Fig. 6.4 Play Control Button

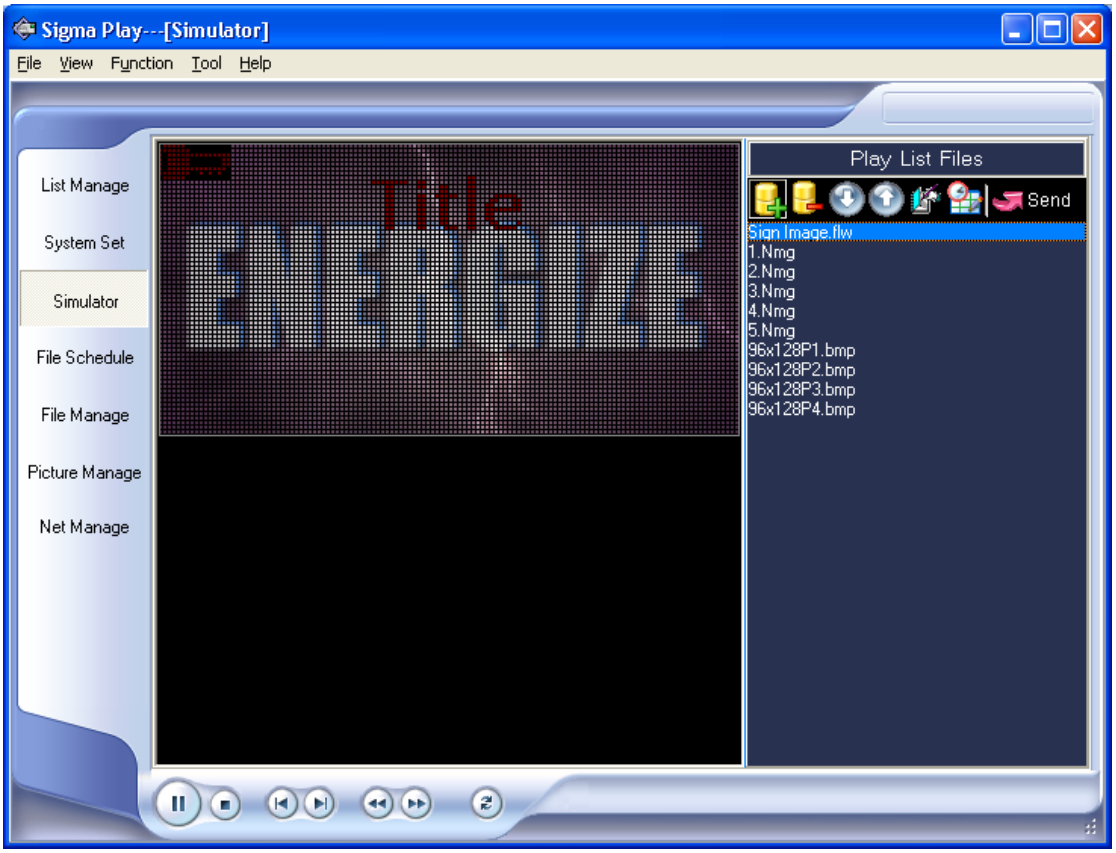


Fig. 6.5 Interface of Simulator

6.4 File Schedule

File Schedule is used to set a time sequence for displaying files.

The Figure 6.6 is an interface for file scheduling. The operation of File Schedule is very simple. For example, if we want to set the display time of a file to be from 8:00am to 8:00pm every Monday through Friday from May 15, 2008 to June 15, 2008, we can do as follow:

Step 1：Set date. Click the beginning date to be May 15, 2008 and ending date to be June 15, 2008；

Step 2：Set time. Set beginning time to be 8:00am and ending time to be 8:00pm；

Step 3：Set day.　Unclick Saturday and Sunday；

Step4：Set display time for displaying other files in the same way as you do to the first

file；

Step5：Send file list. After you have set time for displaying all the files, click the Send button to send the file list to the LED screen.

NOTES: If in the play list there is a file that has not been assigned a play time, the LED display will recognize it by default the file should be played on and on without stop. Another point that needs attention is that you must adjust the internal clock of the LED display. Otherwise, it may incur early or late display, or even no-display of files.

Figure 6.7 shows the interface of File Schedule after the first file has been assigned a time of display.

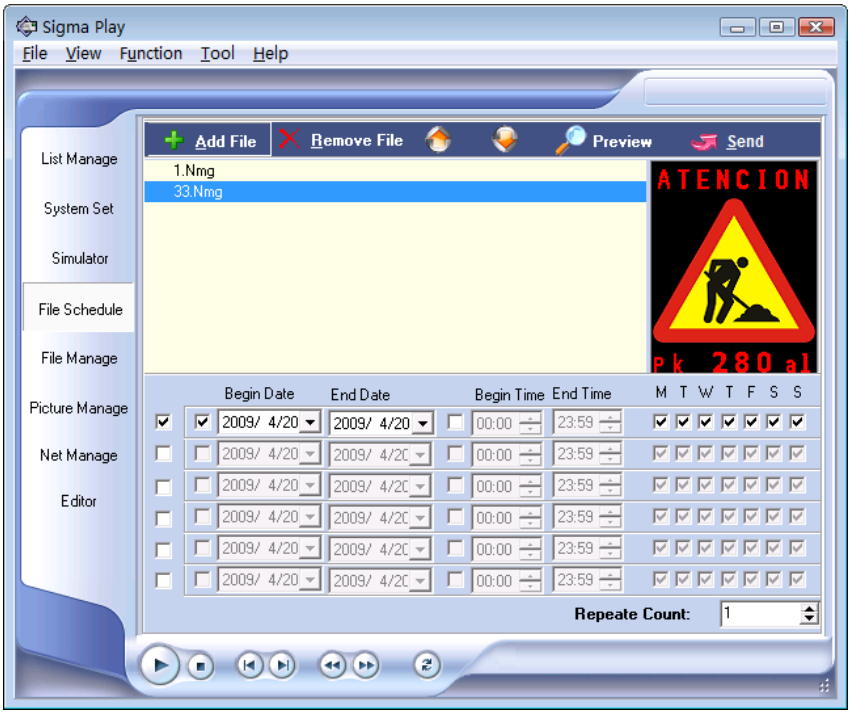


Fig. 6.6 Interface of File Schedule

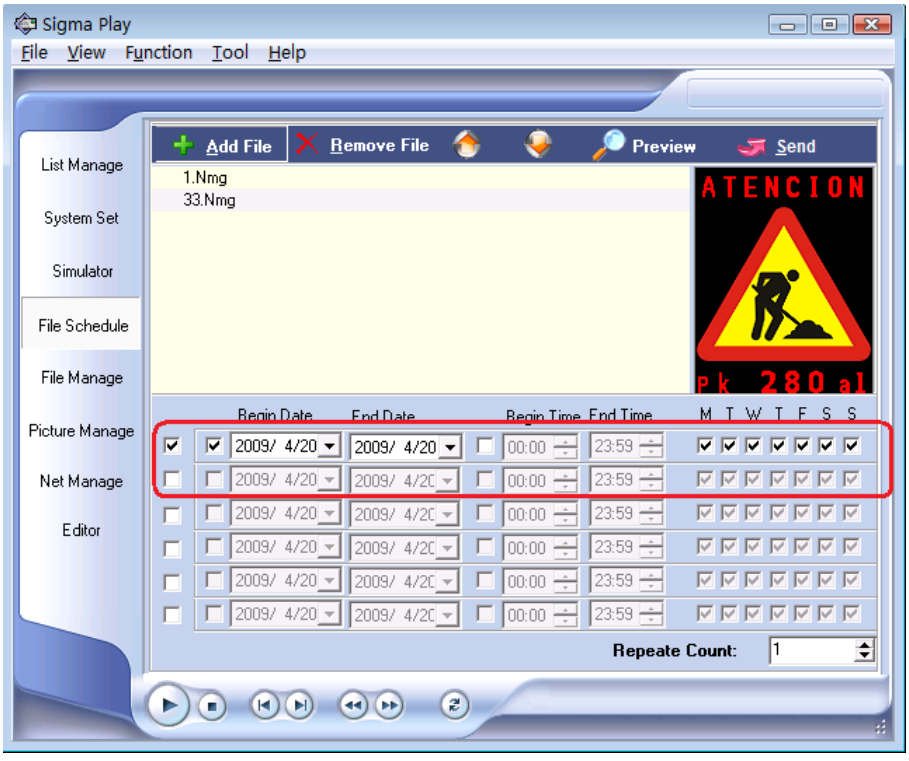
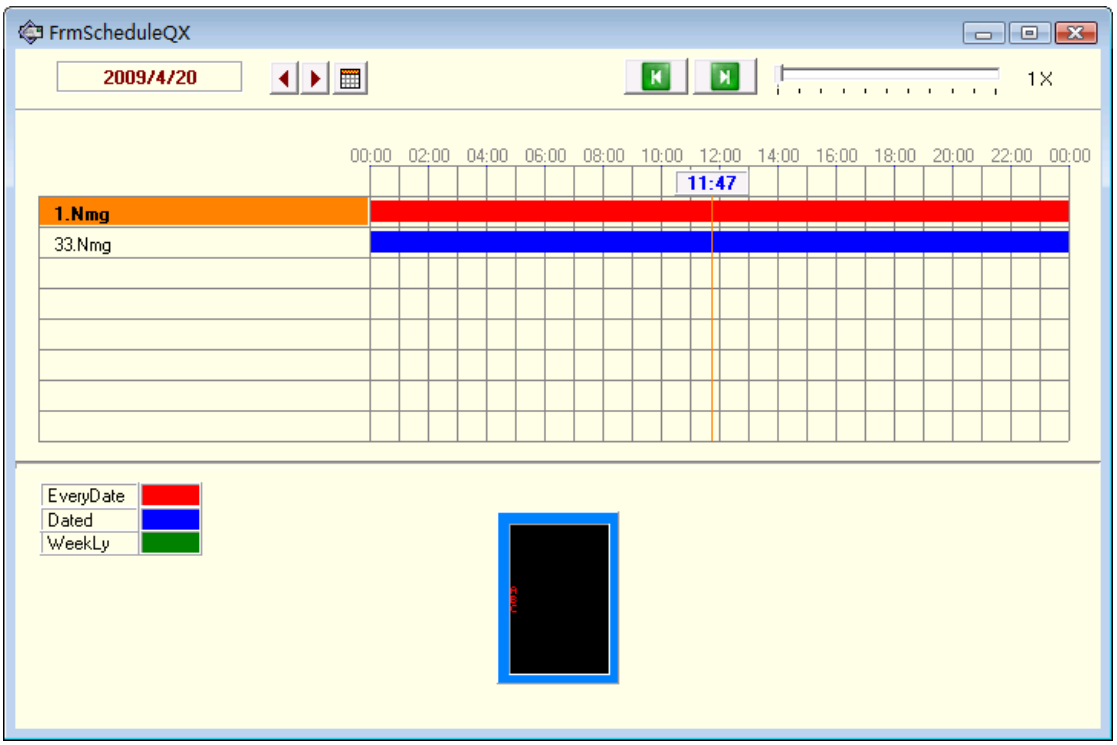


Figure 6.7 Set time for displaying the first file

please set up the dispatching massage ,then check in

, can see and simulate the situation which files run in any period .



6.5 File Manage

File manage panel is used to manage the disks of control board of the display screen and the windows of the disks' system files

As is shown in Fig 6.8, it is the file manage interface. There are four disks C, D, E and F in the figures.

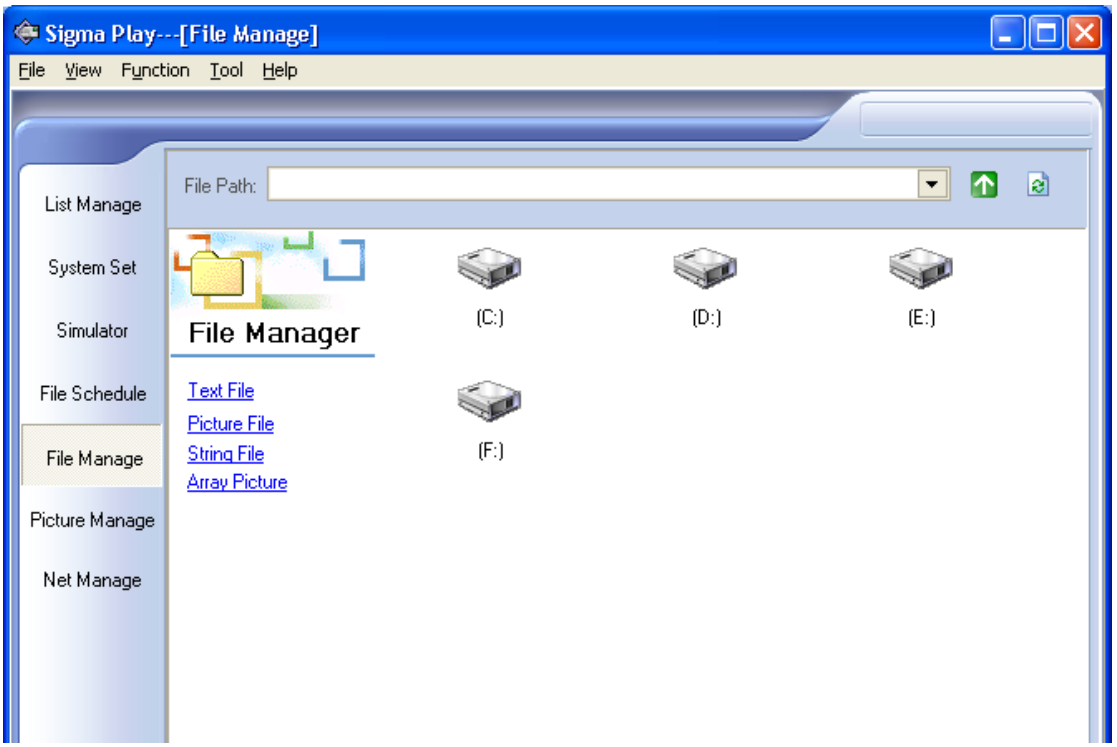


Fig. 6.8 Interface of File Manage

: Go back to the former directory;

: Refresh the current directory;

Firstly, let's explain the function and property of each disk.

Disk C: This system disk includes important system files, such as System Set, FPGA file, Font list file, Play list and so on. The directory of the Disk C can be opened by double clicks, as is shown in Fig 6.9.

FONT: It is the file folder of the font list in Disk C. If there isn't Disk F, the font list will be downloaded to this folder. The capability of this folder is limited, and the Chinese font list can't be saved in this folder.

FPGA Folder: When the FPGA program is downloaded, this program file will be saved in this FPGA folder.

TEMP Folder: Temporary file folder;

CONFIG.SYS: The files of current system configuration. And all system parameter will be saved in this folder.

DEFAULT.SYS: The defaulted system configuration files;

SEQUENT.SYS: The play list of the current system. The list records the name of the current play files;

LOGO.SYS: Logo display files;

COLORTY.BIN: palette files.

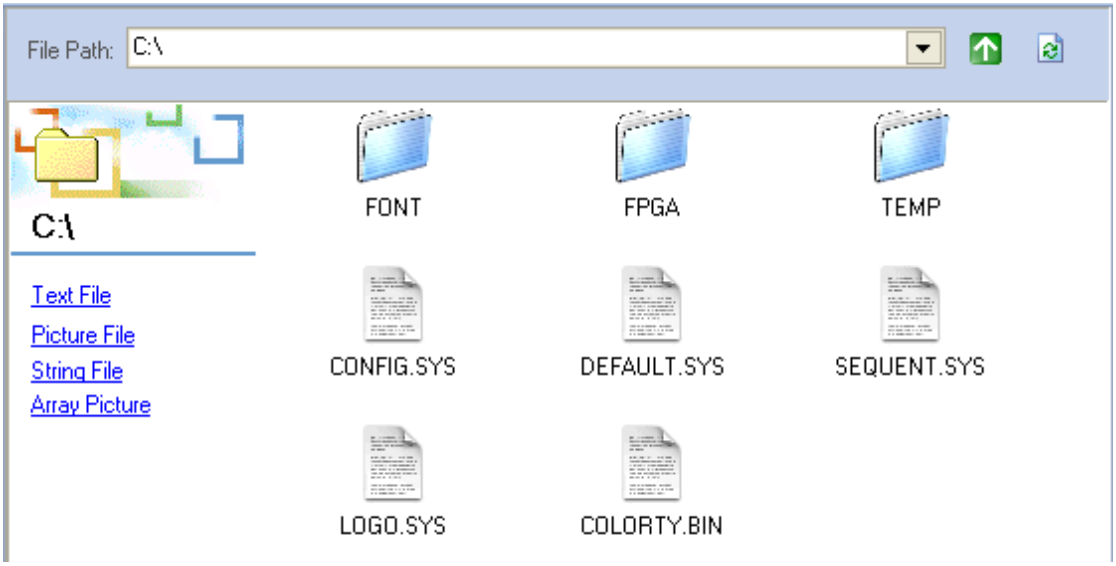


Fig. 6.9 Directory of Disk C

Disk D: Disk D is Flash disk which save the play files of systems. As is shown in Fig 6.10, it is the directory of Disk D.

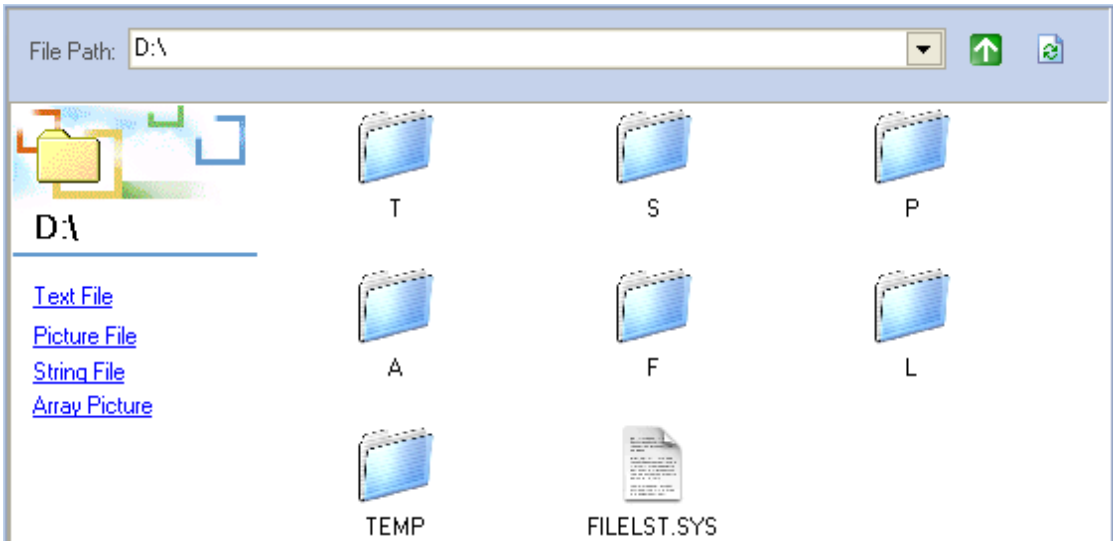


Fig. 6.10 Directory of Disk D

T Folder: It is used to save the NMG file which is edited by Sigma Editor);
S Folder: It is used to save the character string file,
P Folder: It is used to save the BMP picture file. All pictures sent to the main board will be transferred to the picture files of BMP format;
A Folder: It is used to save the PMG file which is edited by True Font Editor;
L Folder: It is used to save the NMG file which is transferred from AVI or GIF file;
TEMP Folder: Temporary file folder;
FILELST.SYS: The list of all files in the disk. And it is different from the list of play files in C disk.
Note: Disk D is Flash disk. If files in Disk D are refreshed often, Disk D will be damaged easily. The lifetime of Disk D is about 100 thousand times rewriting. Therefore, if it needs to refresh the files often, it is suggested change the default disk to be Disk E.
Disk E: This disk is RAM disk, the files in it can be refreshed frequently, and the refresh speed is fast. But after the power is off, the files will be lost. As is shown in Fig 6.11, it is the directory of Disk E. The structure and the folder function of Disk E is same as those of Disk D. But there is no FILELST.SYS file in Disk E.

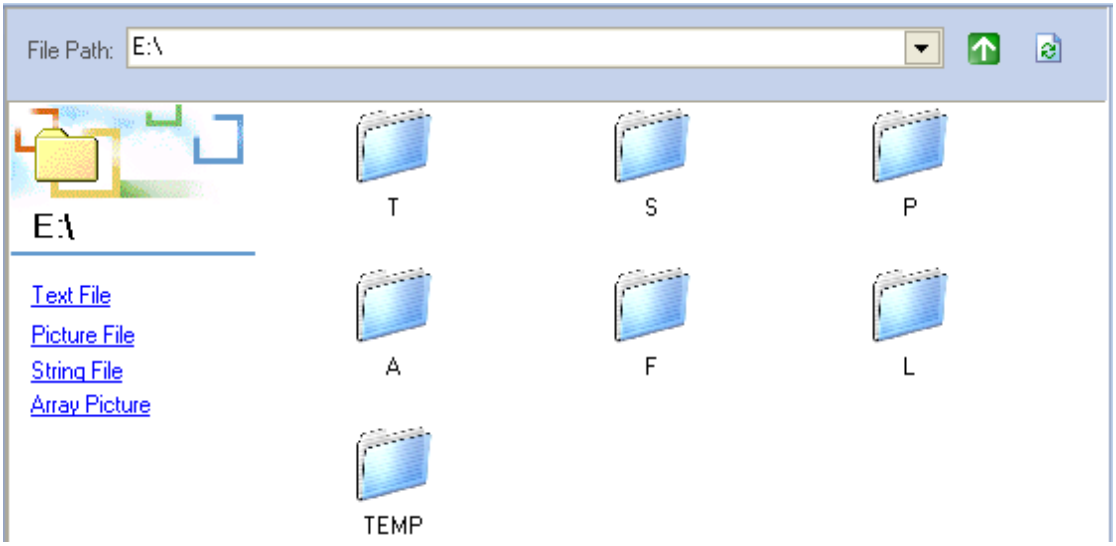


Fig. 6.11 Directory of Disk E

Disk F: Disk F is NandFlash disk or CF or SD Card. The capability of Disk F is very big.

As is shown in Fig 6.122, there is FONT folder in the directory of Disk F. This font list folder also is used to save the font list file. And because of its big capability, Disk F can save bigger font list file. Therefore, when the font list file is sent, the control board with Disk F will default to download the file to Disk F, but not Disk C. The function of other files in Disk F is as same as those in Disk D.

LOGFILE.LOG: It is the file recording play log. When the play log is read, this file will be created.

TEMPLOG.LOG: It is the file recording temperature log. It records the temperature of the display.

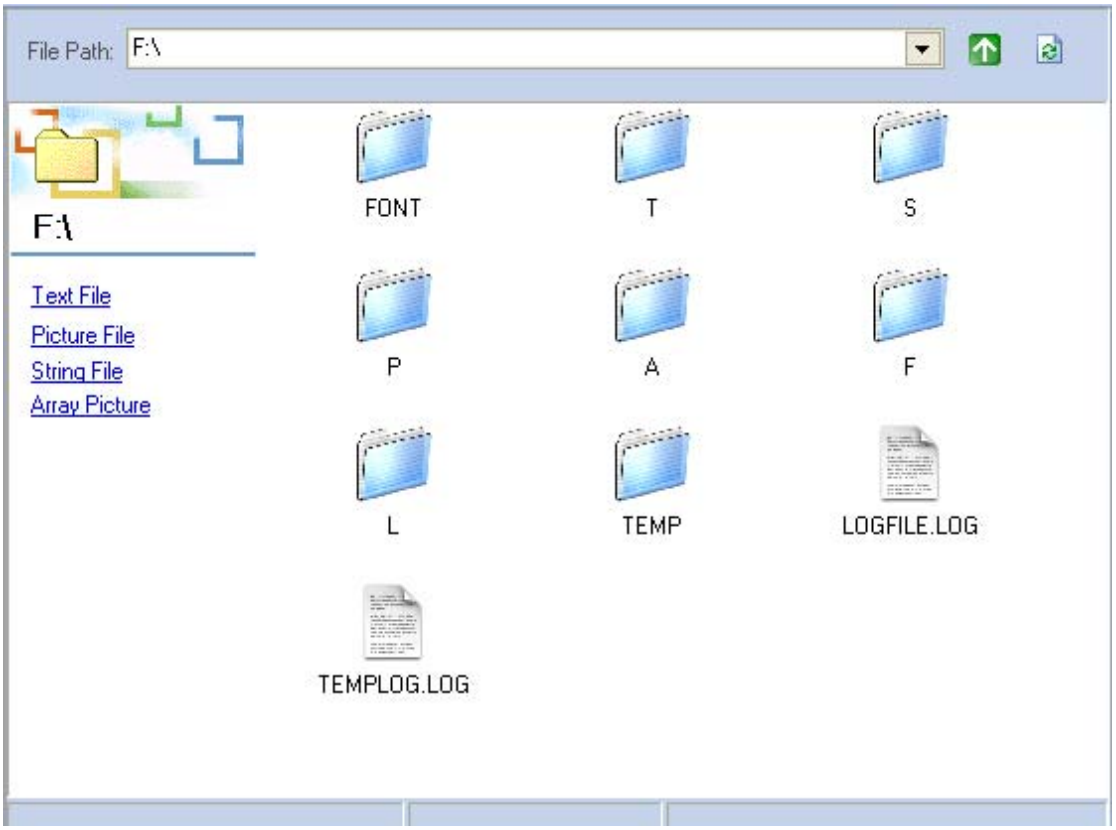


Fig. 6.12 Content of F Disk

Now we can double-click the FONT folder in F Disk, and see the font information in it. There are a lot of font files in the folder, please see Fig. 6.13.

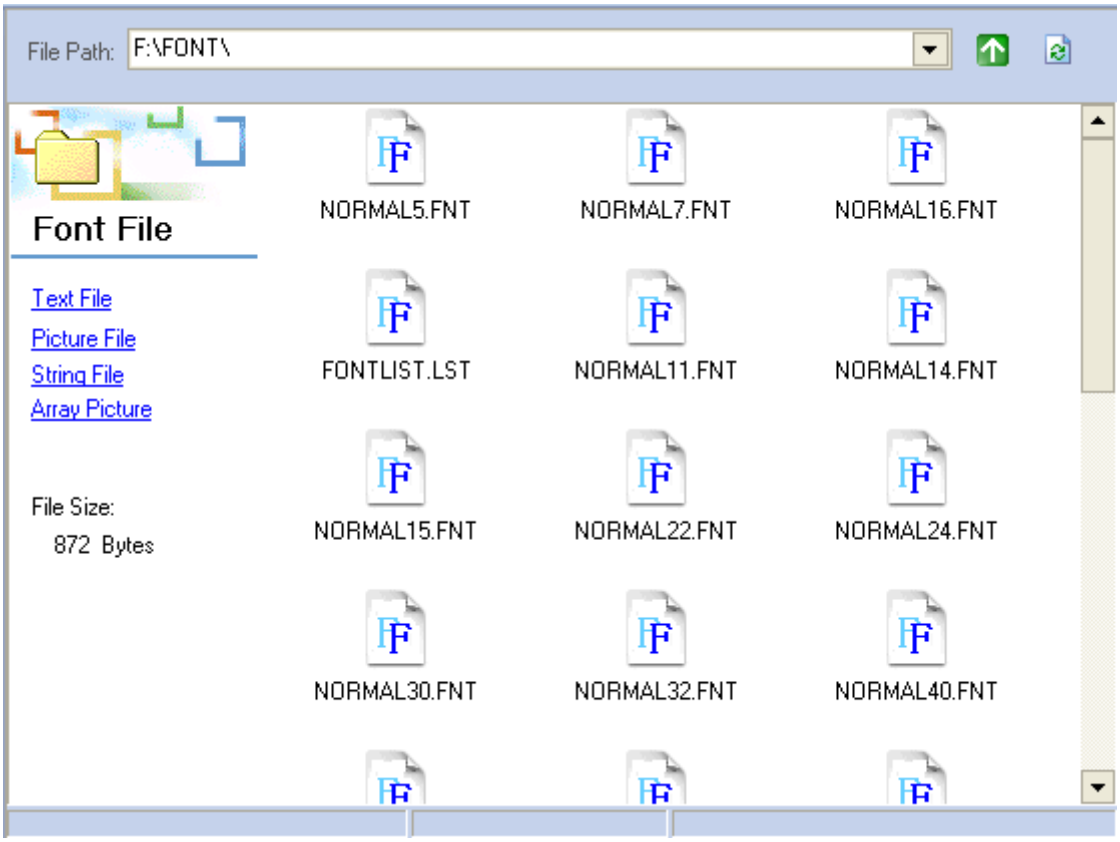


Fig. 6.13 Content of FONT file

Choose one of the font files, click the right key of the mouse and the menu as Fig.6.14 will appear. There are four sub-menus.

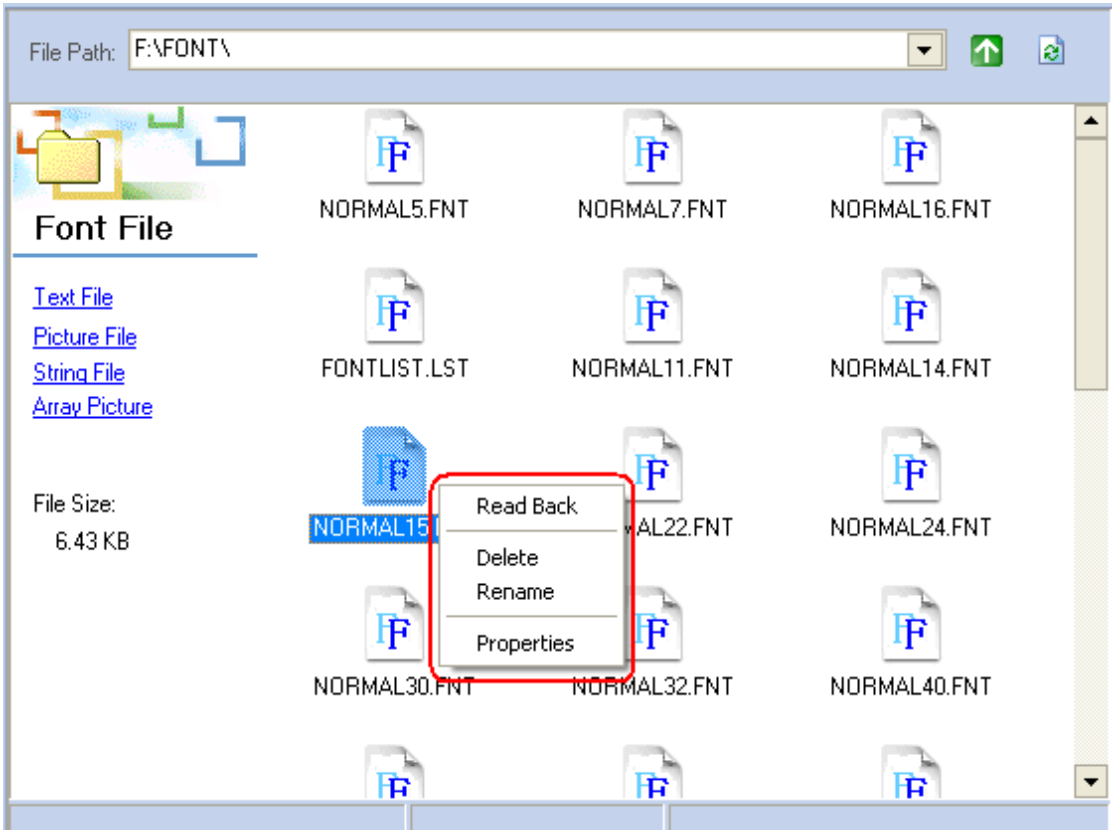


Fig. 6.14 Right-key Menu

Read Back: it can read back the font file to the computer and save it;

Delete: it can delete the font file from the control card of the LED display, and after the file is deleted, that type of font can not be shown on the display;
Rename: it can re-name that font file. But font files are system files, if they are re-named, the system can not find them, so please don't re-name them. But other display files like NMG files can be re-named;
Properties: it shows the information such as the size and foundation date of the file, etc. Please see the Fig.6.15, it is the properties of that font file. And users can see the properties of display files too.
In the same way, if you point other files and click the right key of the mouse, the right-key menu will appear. But please don't delete the system files randomly.

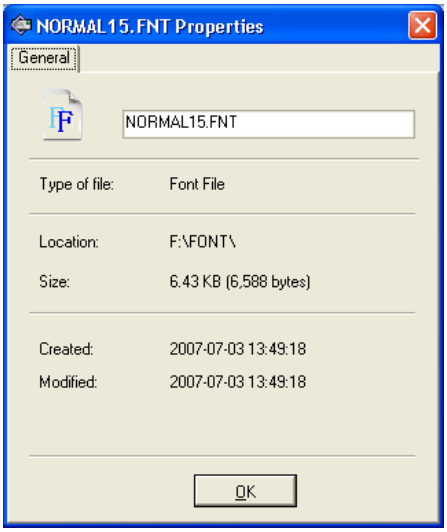


Fig. 6.15 Properties of font

6.6 Picture Manage

Picture Manage is used to manage the display pictures of the LED screen, and it can modify the pictures or edit some words on the picture, etc.
Fig. 6.16 is the Picture Manage, ① is Tool bar; ② is List of pictures; ③ is picture preview; ④ is Information of the picture; ⑤ is Status column. The following is the introduction of the tools in Tool bar.

: Open the List of pictures; : Save the List of pictures;

: Add the picture to the List; : Delete the picture from the List;

: Move up the picture in the List;

: Move down the picture in the List;

: Zoom it the picture;

: Zoom out the picture;

: Edit the picture, open the Picture Editor which already exists in Windows to edit the picture like Fig.6.17.

Send: Send the picture to LED screen；

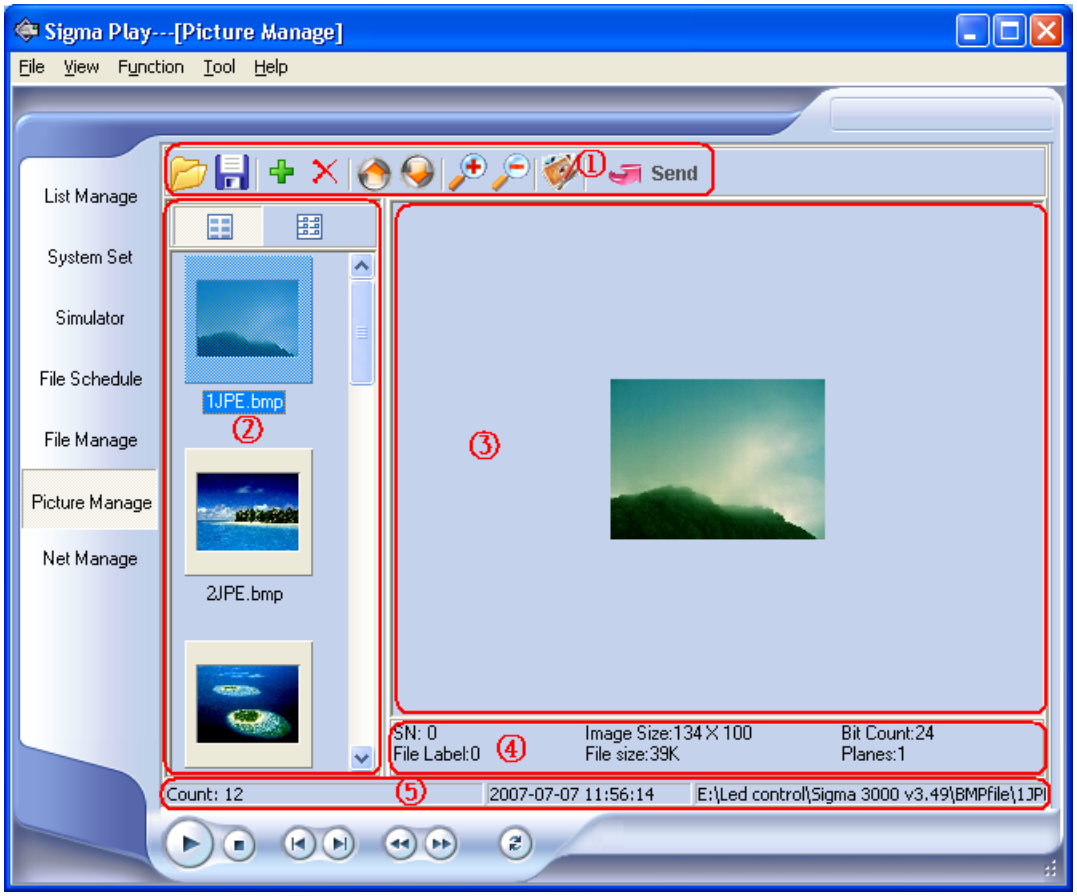


Fig. 6.16 Interface of Picture Manage

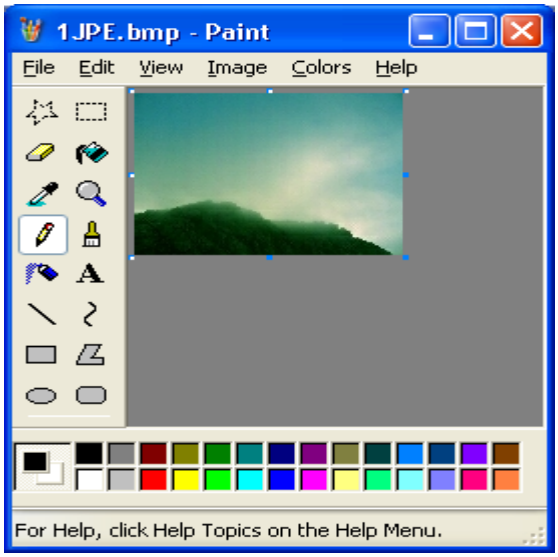


Fig. 6.17 Edit the picture

6.7 Net Manage

Net Manage is supposed to mainly control many LED screens and display files.

Please see Fig.6.18, the Net Manage is divided into 4 parts, we will mainly use the upper 2 parts, and the lower 2 parts are for related information. Now let's discuss the procedures in using Net Manage.

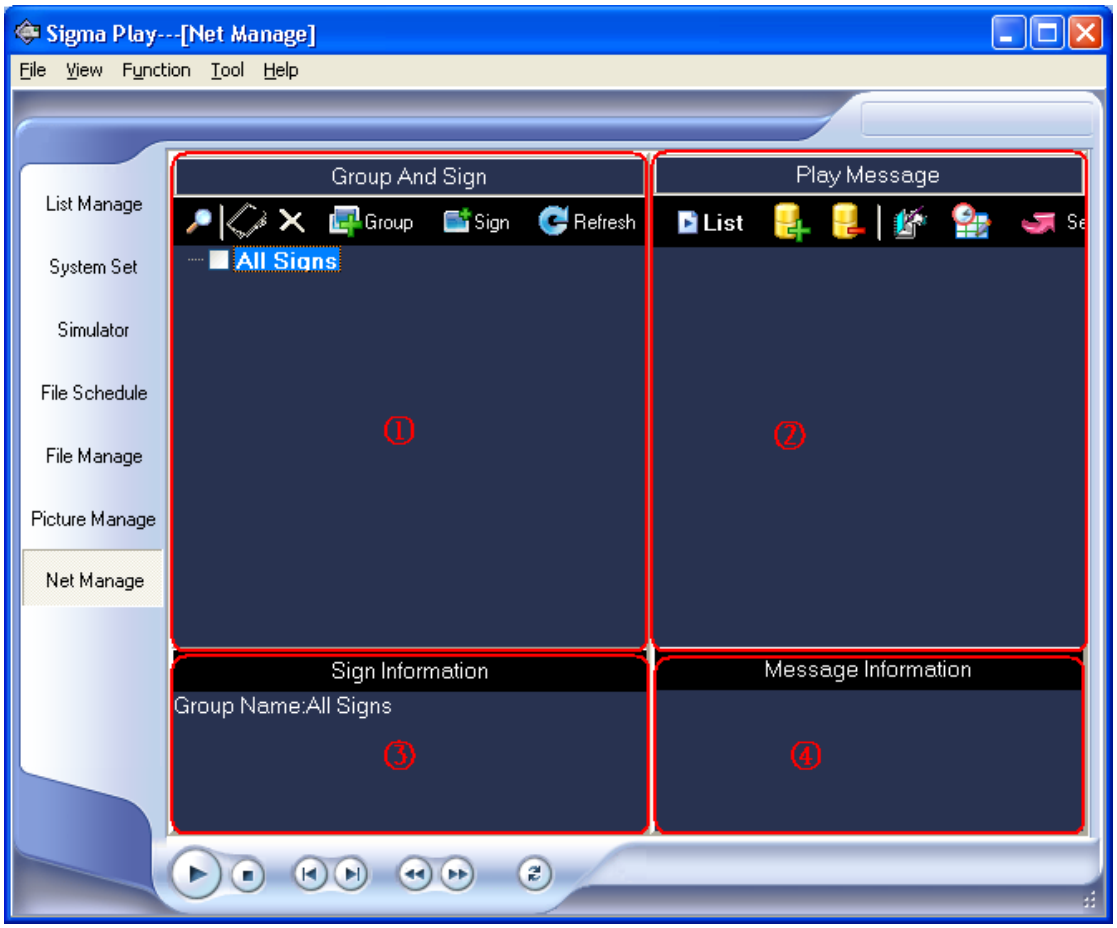


Fig. 6.18 Interface of Net Manage

Step 1: Search LED screen.

Click the button for searching，and a window named Display Search will appear, like Fig.6.19, there are 3 devices for choice in the column of Communication Device. Ethernet is used to search the LED screen in the current window, please input the Start IP and End IP (for the use of Port, please see Chapter Ⅱ), click the button “Start” and it finds out 3 LED screen shortly like Fig. 6.20

Other methods of searching:

Please see Fig.6.21，it uses com port to search the LED display. Now it must guarantee that the com port cables of all displays can communicate with the control computer and are being connected. Com port search carries out according to GGUU address, so the pre-set GGUU of every screen should be different. GG means the same Group, but UU should be different or otherwise GG is different.

Please see Fig.6.22, it uses phone number to search LED display. Here the LED display must be searched one by one, and the telephone number, the computer com port, the baud rate and GGUU must all be correct. This is an accurate search, so all the parameters must be correct.

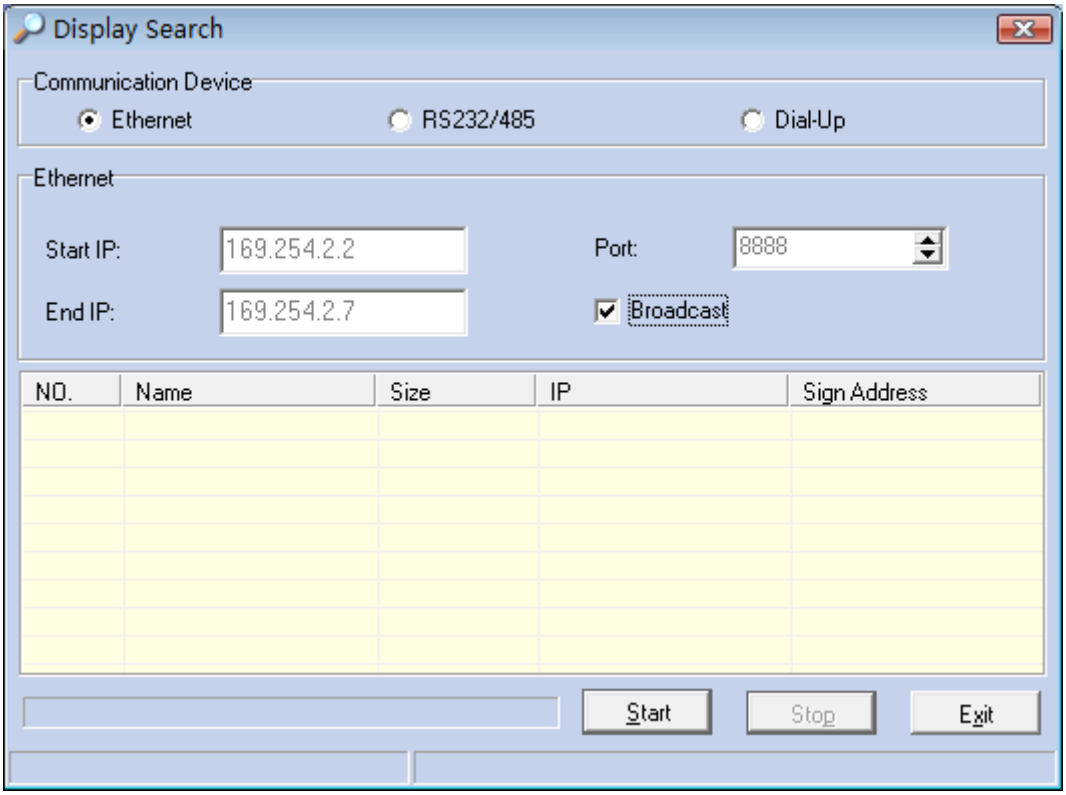


Fig. 6.19 Window of Display Search

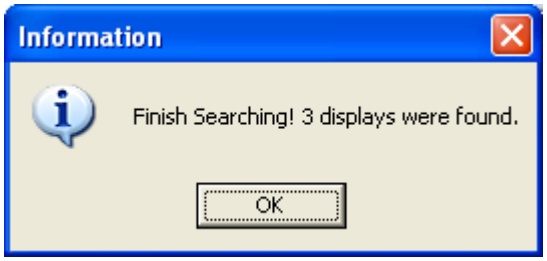


Fig. 6.20 Search finishes

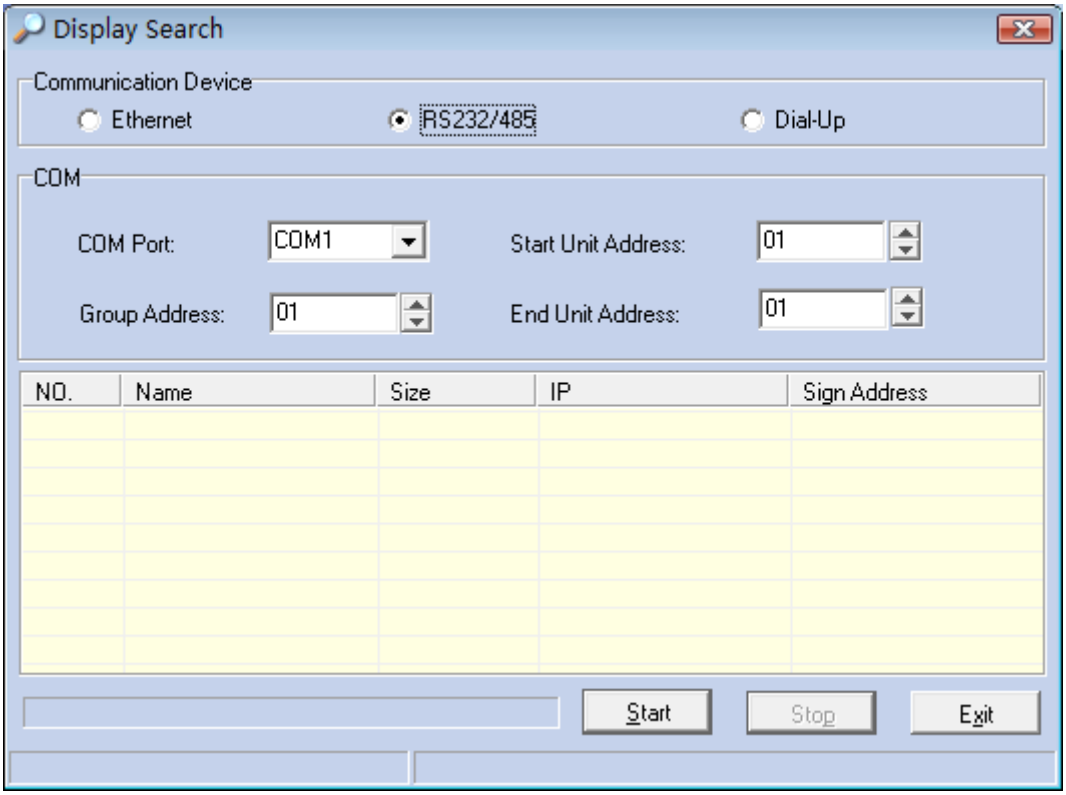


Fig. 6.21 Display search with com port

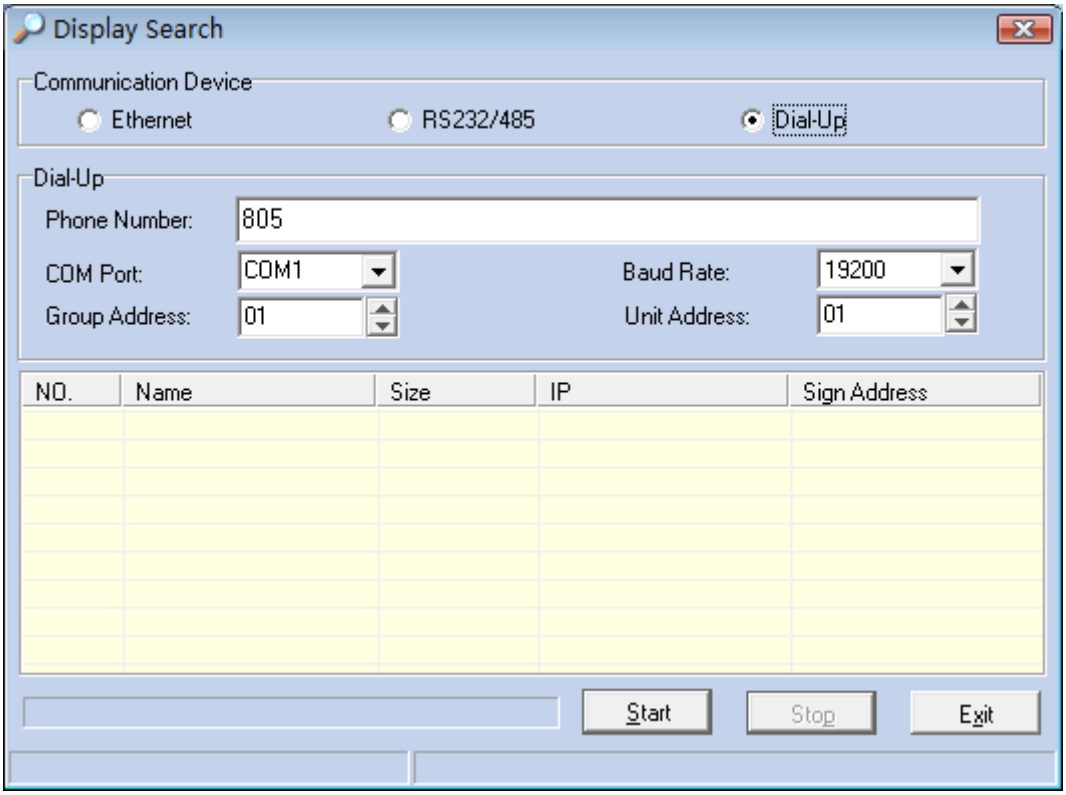


Fig. 6.22 Display search with telephone number

Step 2: Add display file.

After Display Search finishes, there are 3 displays in the interface of Net Manage like Fig.6.23.

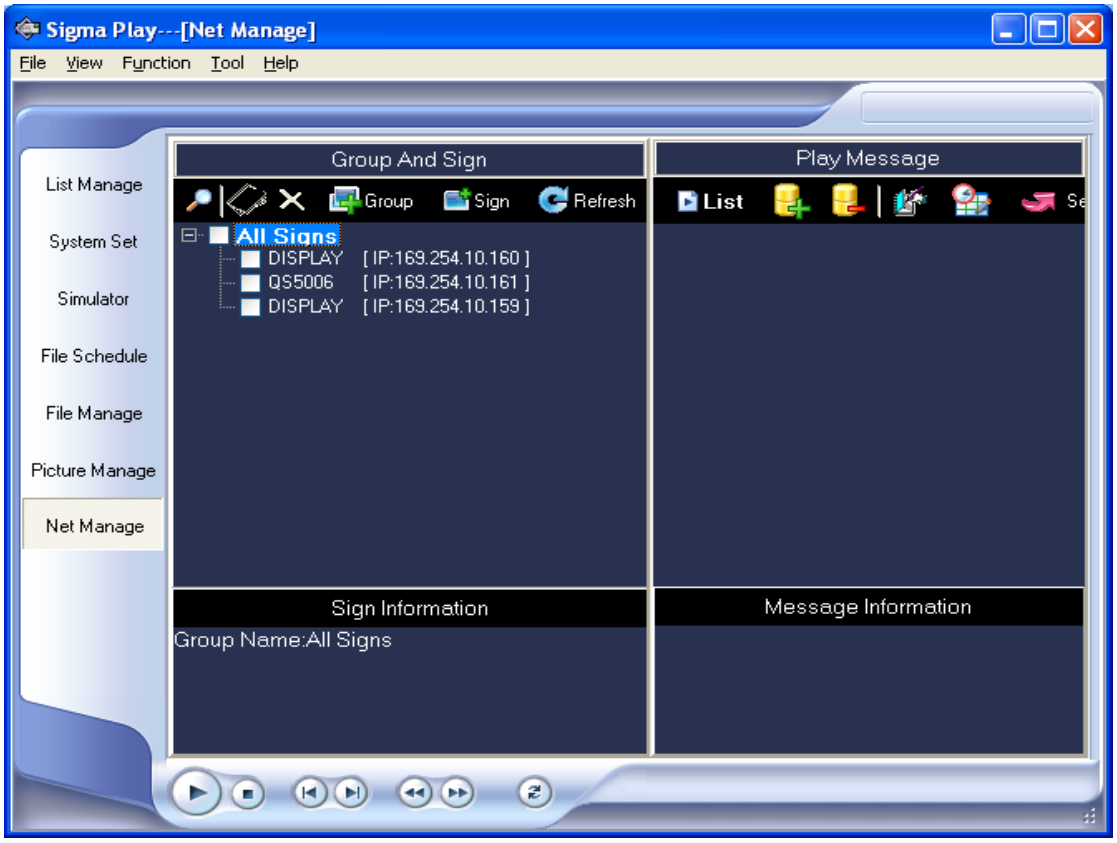


Fig. 6.23 Displays searched

Click the button List and the files in the List will be added. Click the button , and the display files are added directly. Now we add display files to Net Manage like Fig.6.23.

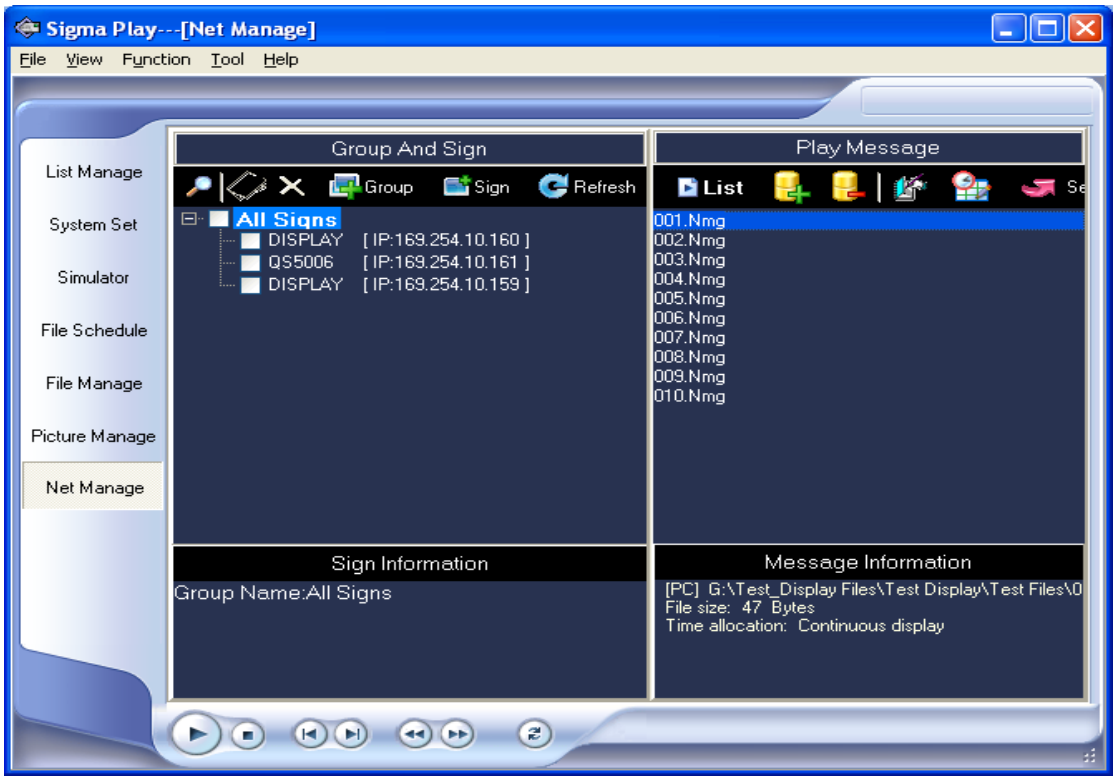


Fig. 6.23　Display files added

: Edit file（NMG file will open Sigma Editor for editing）;

: Set the time schedule of files like Fig. 6.24, user can set the display schedule for the file in the window of Schedule;

: Send display files to the chosen LED screen to display;

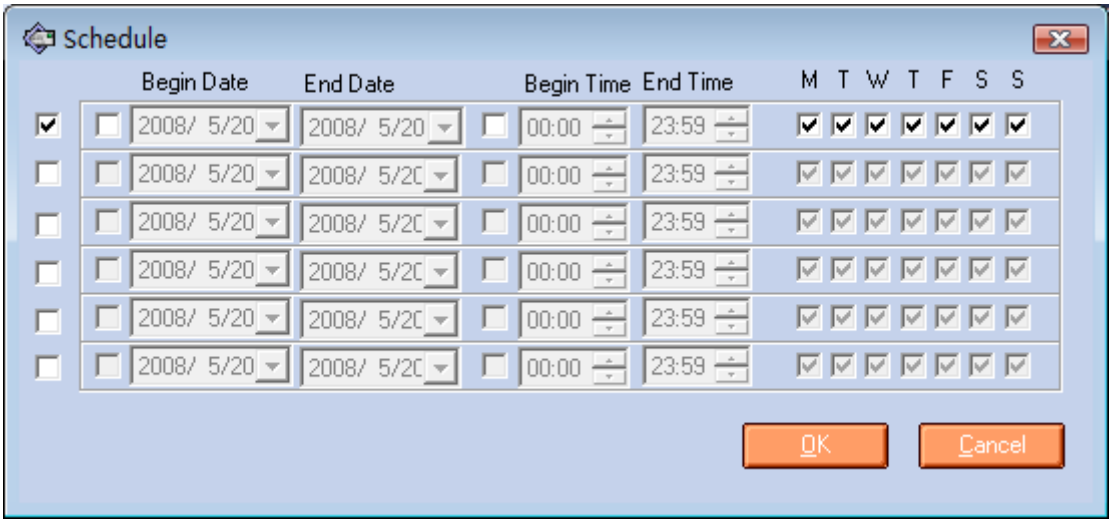


Fig. 6.24　Window of file Schedule

Please see Fig. 6.25, after the user sets the schedule, the display time of the file can be seen in the column of Message Information.

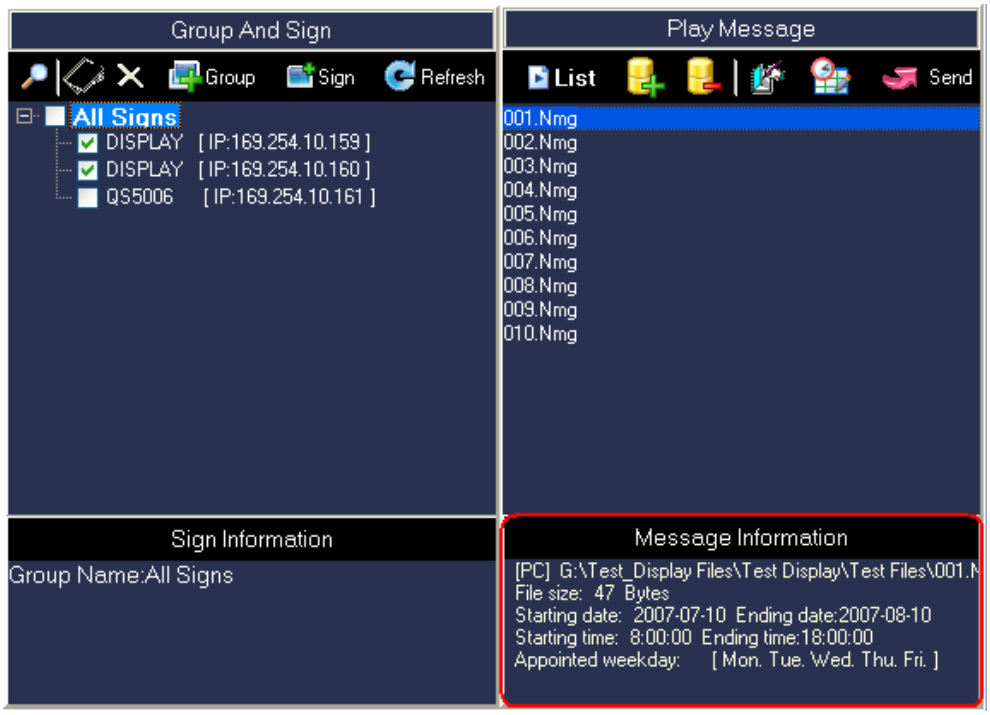


Fig. 6.25　Information of display file

Step 3: Send the display file.

Add the display file, and set the display time(if user doesn't set the display time, the file will display all the time)，choose the LED screen like Fig.6.26, and click Send, then the file will be sent like Fig.6.27.

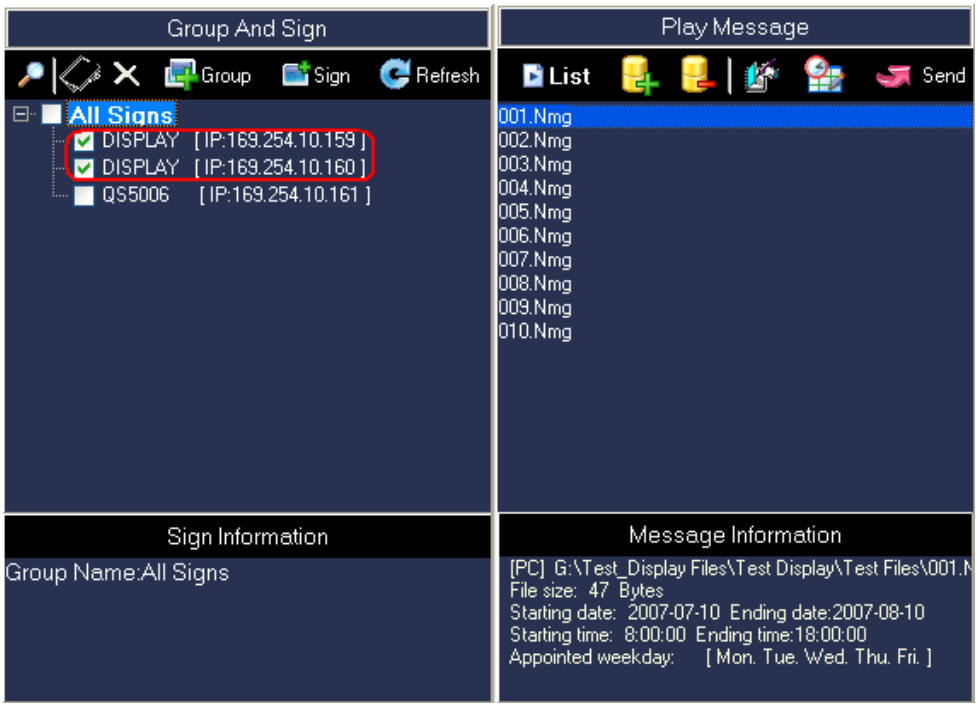


Fig. 6.26 Choose the LED screen

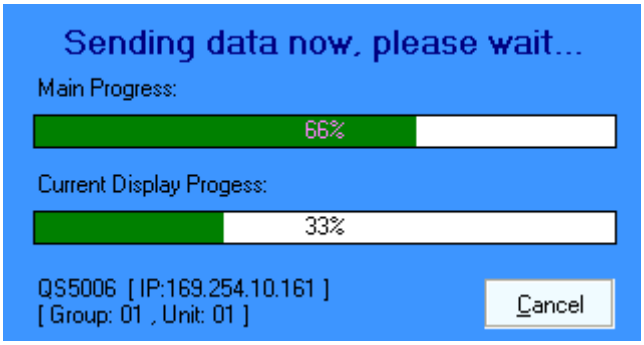


Fig. 6.27 The display file is being sent

Please see Fig.6.28, after the files are sent successfully, the files have been in the LED screens of 169.254.10.159 and 169.254.10.160，but other LED screens will not display these files.

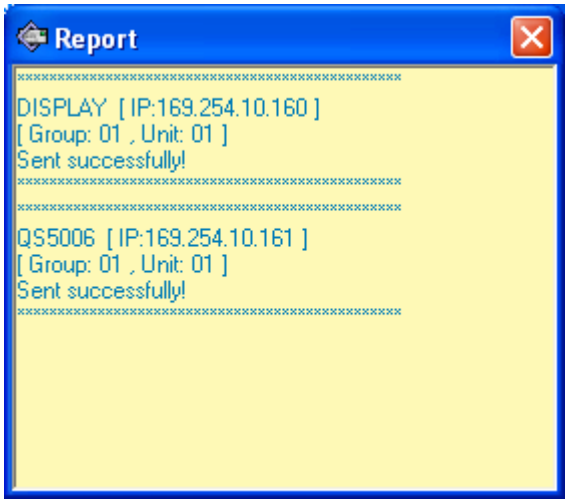
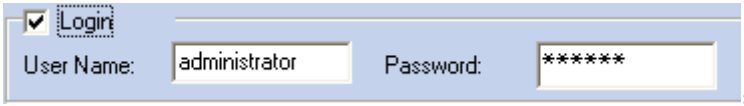


Fig. 6.28 File sent successfully

The above talks about simply how to use it, and the following talks about other applications.

: Edit the parameter of the chosen LED screen like Fig.6.29. If “hardware login” is set in Display Manage, then user must “√” in the Login column and input the password. (The default password is all 0).



: set the status of Hardware Login；

: Test whether that LED screen can be searched back or not.

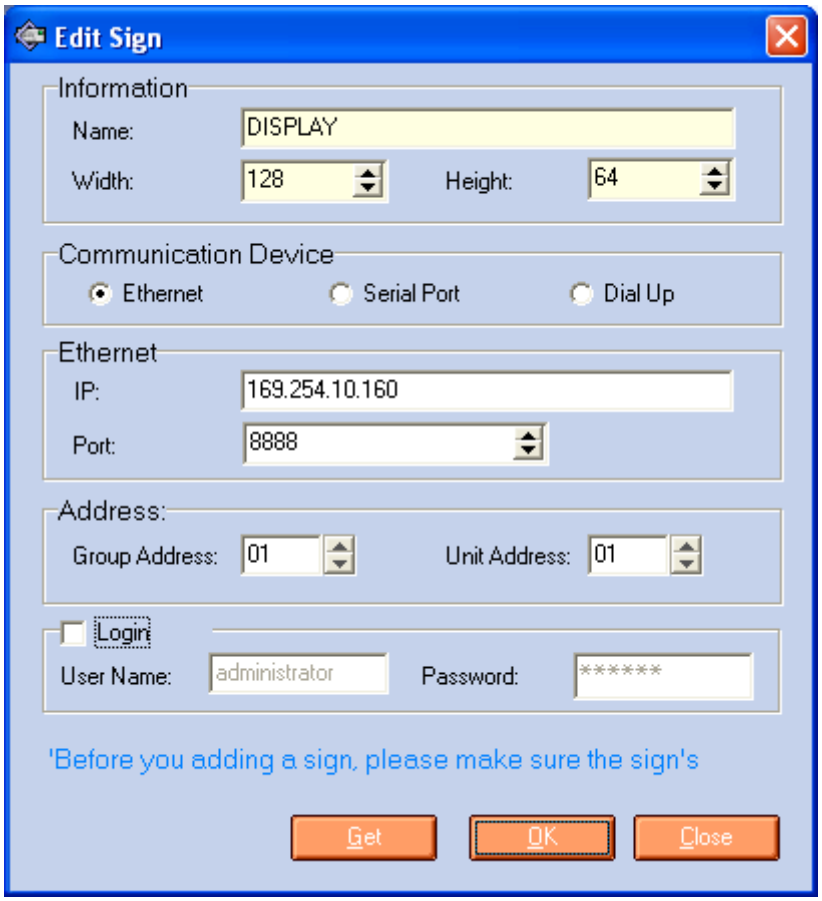


Fig. 6.29 Edit the LED sign

: Delete the chosen LED sign;

: Add group. Please see Fig.6.30, to add a new group, user just needs to drag the LED sign from the left window to the right window.

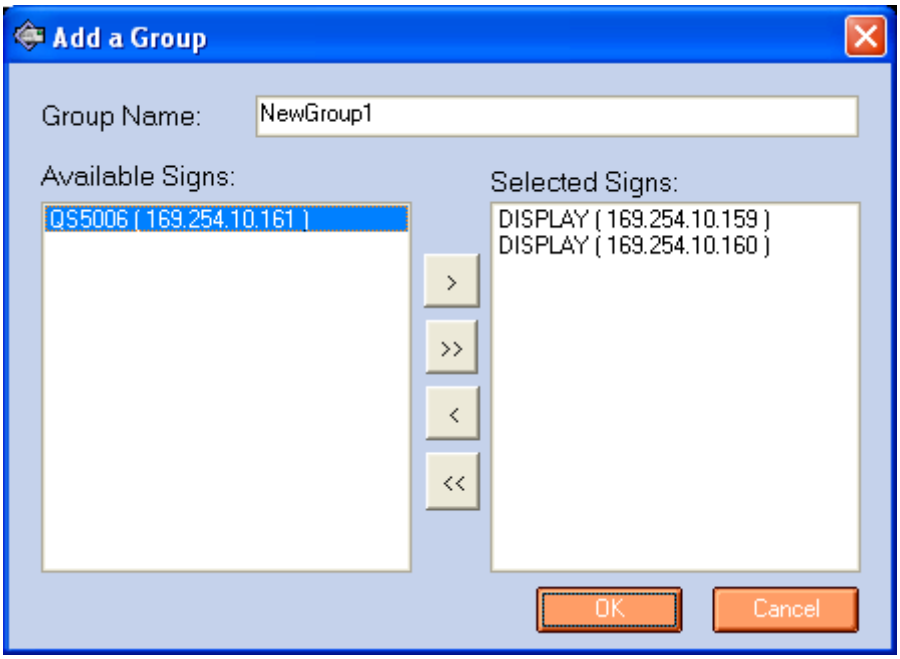


Fig. 6.30 Add group

In Fig. 6.31, when the group is added, there is a new group in the interface of Net Manage.

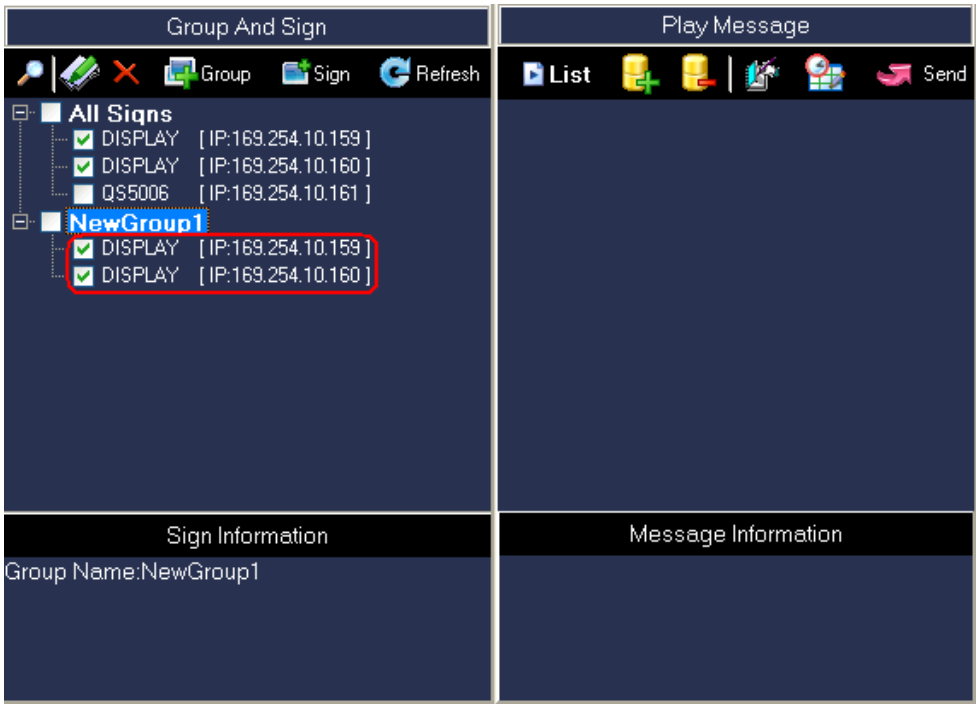


Fig. 6.31 New group in Net Manage

Sign: Add LED sign. Please see Fig. 6.32, that window is the same as the one for editing LED sign. The LED sign must be tested whether it can be searched before it is added, otherwise, user can do nothing to it although it is added.

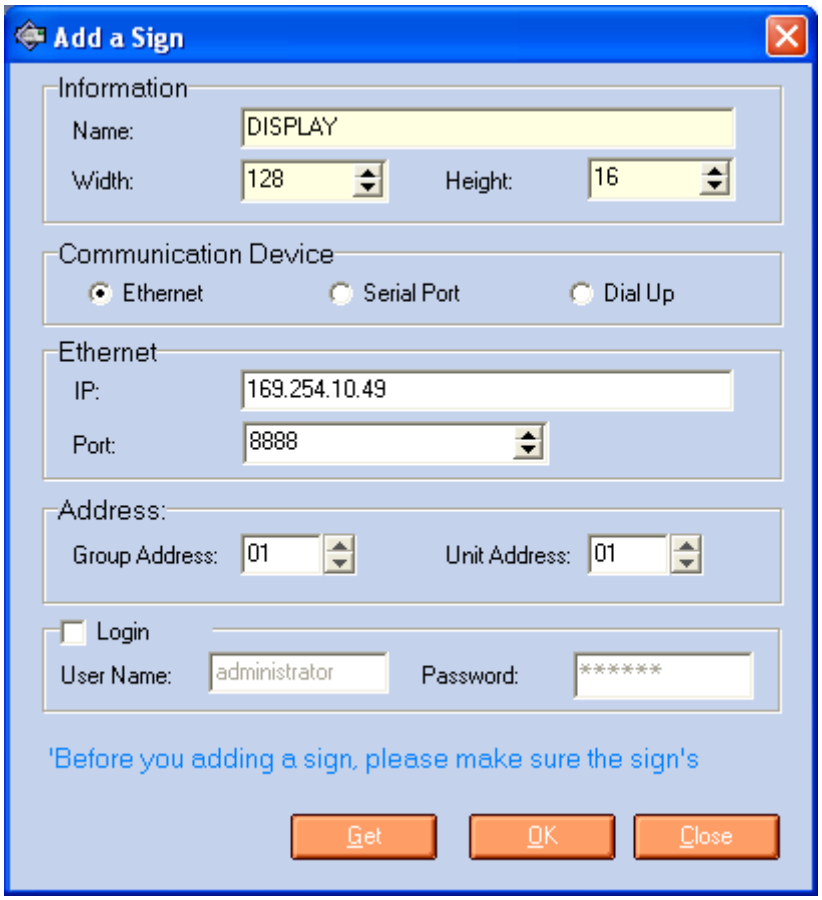


Fig. 6.32 Add an LED sign

Refresh: Refresh all the LED signs searched back, which means search all the LED signs once again. In Fig. 6.33, the Refresh finishes.

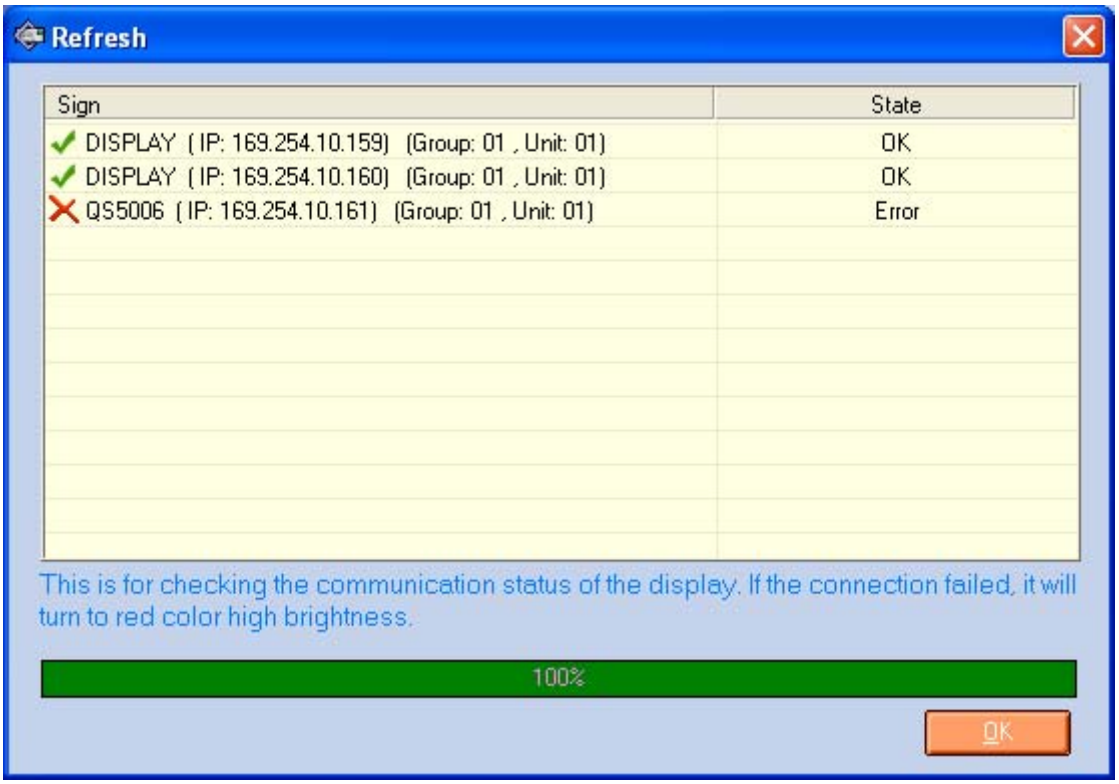

Refresh
Sign
State
DISPLAY (IP: 169.254.10.159) (Group: 01 , Unit: 01)
OK
DISPLAY (IP: 169.254.10.160) (Group: 01 , Unit: 01)
OK
QS5006 (IP: 169.254.10.161) (Group: 01 , Unit: 01)
Error
This is for checking the communication status of the display. If the connection failed, it will turn to red color high brightness.
100%
OK

Fig. 6.33 Refresh finishes

If the LED sign can not be searched, it will show that sign in Red letters. Please see Fig.6.34 for reference.

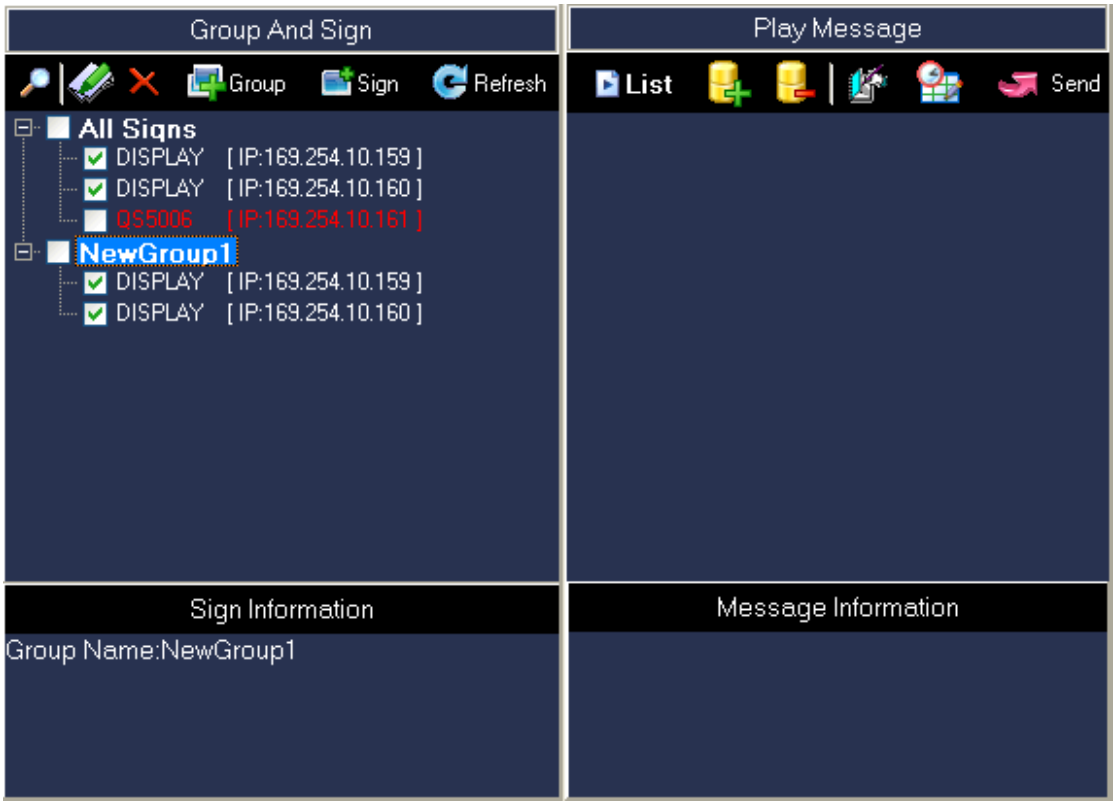


Fig. 6.34 The LED sign QS5006 can not be searched

Chapte7, GPRS Dial-up function

Dip switch setting:

For the Master QS5136 board: Set the 4 bit switches on SW2 need to be "ON" status; The No. 2 bit switch on SW3 needs to be "OFF" status and the No. 1 bit switch on SW3 needs to be " ON" status.

For Slaver QS5136 board:

For the Slaver QS5136 board: The No. 1 bit switch on SW2 needs to be "OFF" status; other dip switches on SW2 need to be "ON" status. The No. 2 bit switch on SW3 needs to be "OFF" status and the No. 1 bit switch on SW3 needs to be " ON" status.

Communication requirement:

The common parallel RS232 signal cable is OK. One end connect to the control PC, anther end connect to the COM 2 port on the QS5136 control board

7.1 point to point connection

Connect GPRS system as Figure 7.10 shown

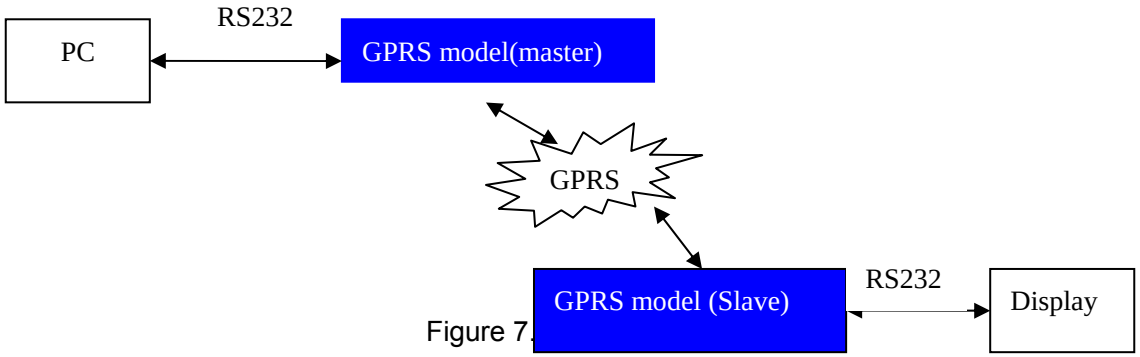


Figure 7.

Open Sigma3000 software, select tool—Dial-up, enter GPRS model slave **SIM card number** into “Number to Dial” (area code should be added), select Serial port which connects PC and GPRS model (master) in “COM Port”, select the baud rate of displays in “Baud rate”, see Figure 7.11

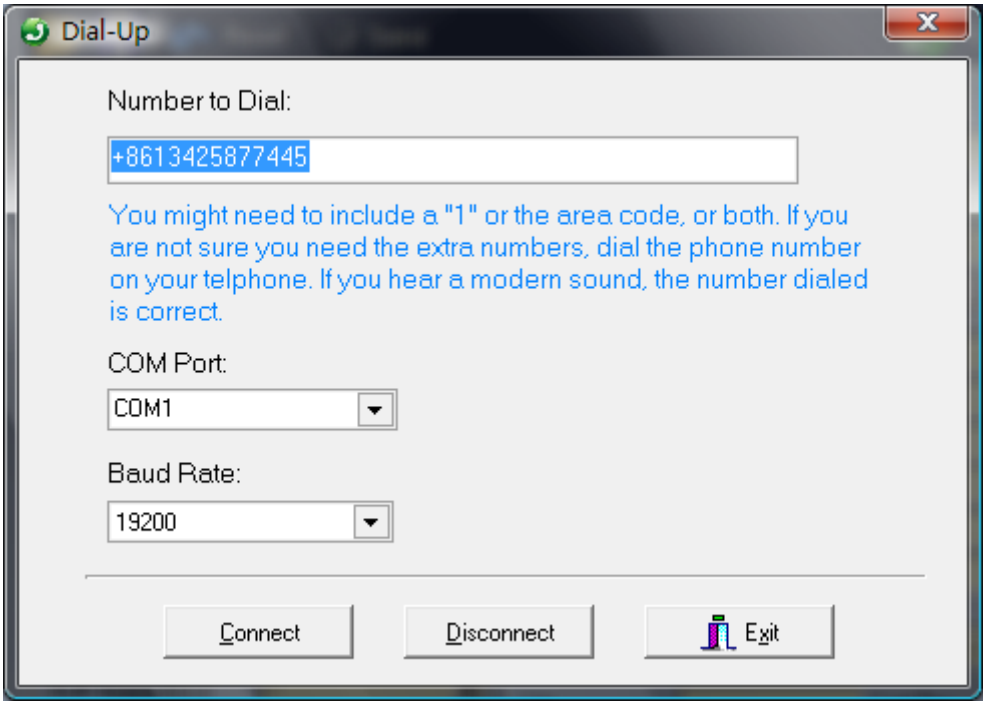

Dial-Up
Number to Dial:
+8613425877445
You might need to include a "1" or the area code, or both. If you are not sure you need the extra numbers, dial the phone number on your telphone. If you hear a modern sound, the number dialed is correct.
COM Port:
COM1
Baud Rate:
19200
Connect
Disconnect
Exit

Figure 7.11

And then click

, you will see a progress box as Figure 7.12

Figure 7.12

if what you see next is the same as Figure 7.13, it means that GPRS system has been connected.

Figure 7.13

After connection, we can communicate with the displays by this channel. Because we use COM1 to connect them, we can communicate with the dislplays by only selecting COM1. See Figure 7.14

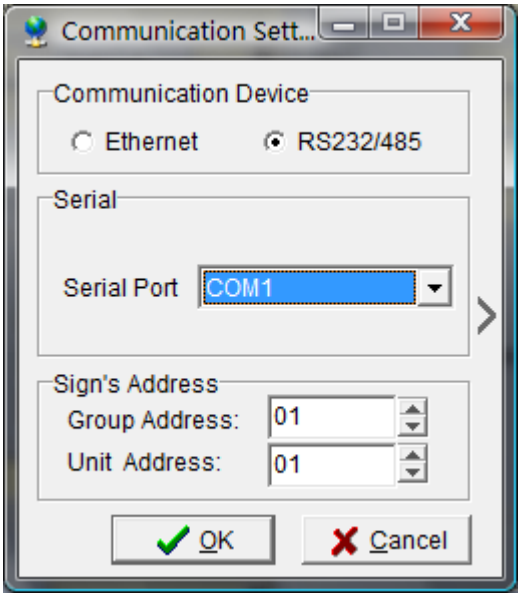


Figure 7.14 selecting COM 1

We can operate the screen after communicating successfully. Finish the operation, we can stop the connection, select Tool----Dial-up, you will see Figure 7.11, and then click

, there is a progress box, when you see Figure 7.15, you disconnect it

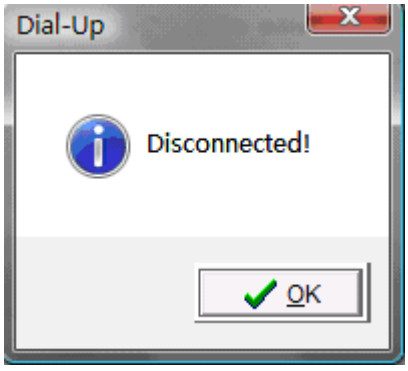


Figure 7.15

Notes: We strongly suggest customer use 19200 baud rate for GPRS model. If the baud ratefor the Mater board and the Slaver board is the same, the communication will be better. The slaver control board will be adapted the baud

rate of the control board inside the LED sign

If you have changed the baud rate for the main board inside the LED sign, pleased remember to reboot the Slaver GPRS model board and re-dial

7.2 Connection from Slaver and Master to Server

Follow Figure 7.20, connect GPRS system;

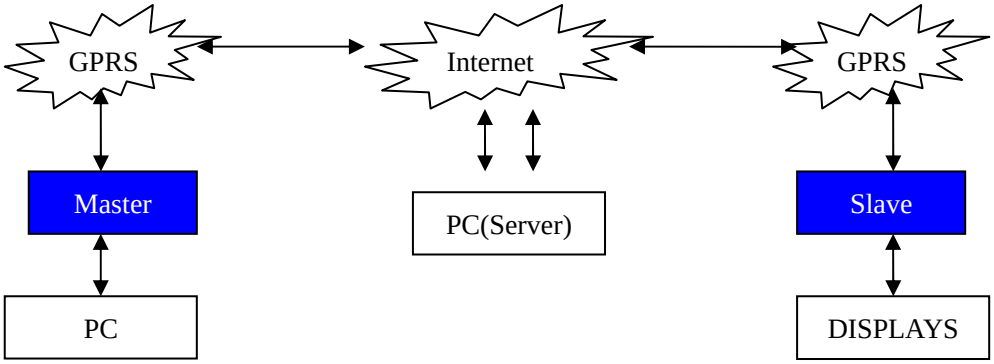


Figure 7.20

First, run a server software VMS SERVER in PC (Server), Follow Figure 7.21

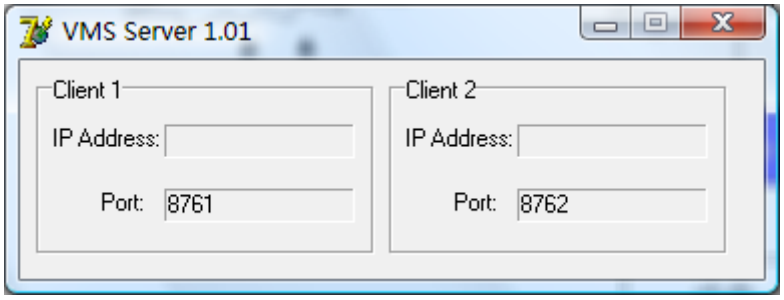


Figure 7.21

And then, open Sigma 3000 in PC, select Toll--- Dial-up, enter SERVER, IP Address, PORTL, Port2, Slave into “Number to Dial”,

SERVER is keyword in command

[IP Address]: the IP Address of server, this command should be used in a system which has only a module, but Server should connect with internet, it means that IP Address is the same as the IP on internet.

Port1 and Port 2 are two monitors, master will connect with Port1, and laver will connect with Port2

Phone number of Slave: **SIM card number** of slave

For example: SERVER, 219.128.254.187.8761, 8762,+ 8613425877445

Select Serial port which connects PC and GPRS model (master) in “COM Port”, select the baud rate of GPRS model (master) in “Baud rate”, and see Figure 7.22

:

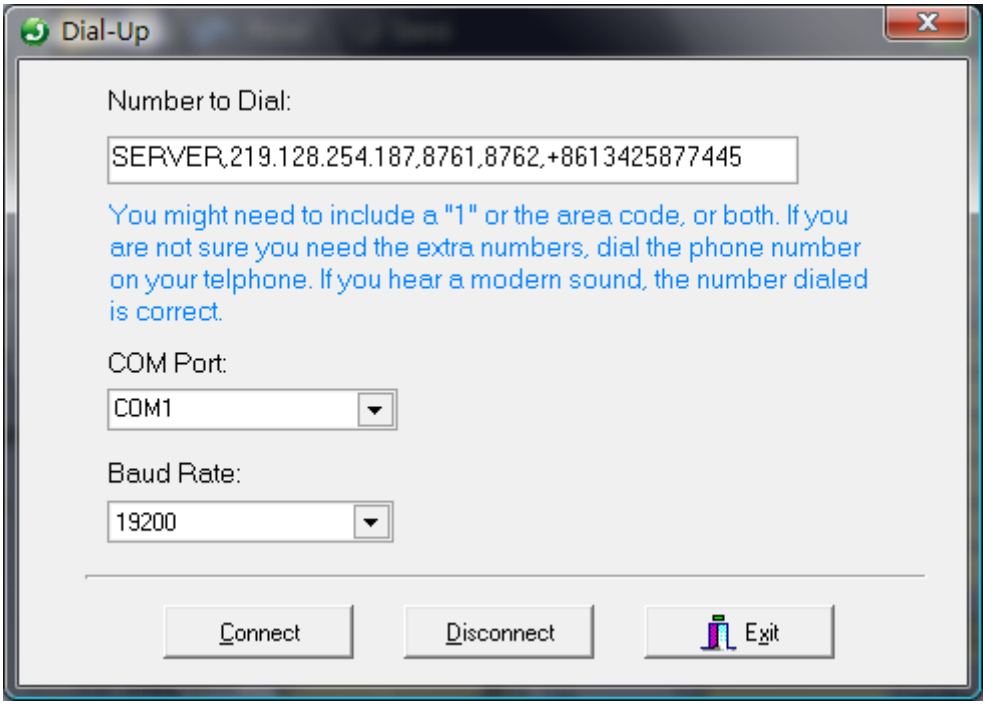

Dial-Up
Number to Dial:
SERVER,219.128.254.187,8761,8762,+8613425877445
You might need to include a "1" or the area code, or both. If you are not sure you need the extra numbers, dial the phone number on your telphone. If you hear a modern sound, the number dialed is correct.
COM Port:
COM1
Baud Rate:
19200
Connect
Disconnect
Exit

Figure 7.22

Click

, appear a progress box as Figure 7.23

Figure 7.23

What you see next is the same as Figure 7.24; it means that GPRS system is connected

Figure 7.24

After connection, we can communicate with the screen by this channel. Because we use COM1 to connect them, we can communicate with the diaplays by only selecting COM1. See Figure 7.25

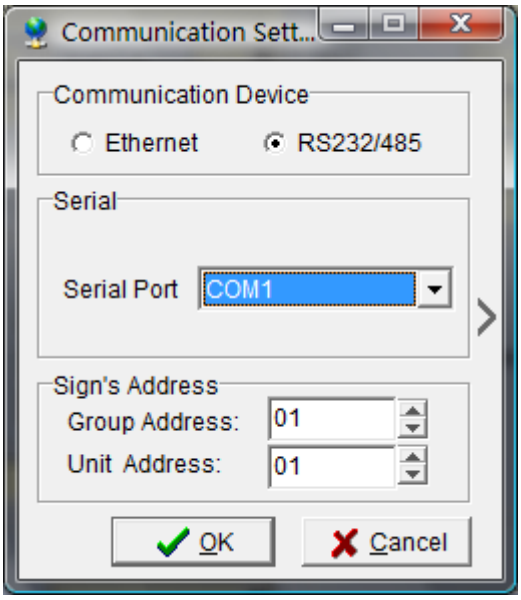
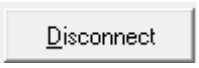


Figure 7.25

We can operate the screen after communicating successfully. Finish the operation, we can stop the connection, select Tool----Dial-up, you will see Figure 7.11, and then click 

, there is a progress box, when you see Figure 7.26, you disconnect it

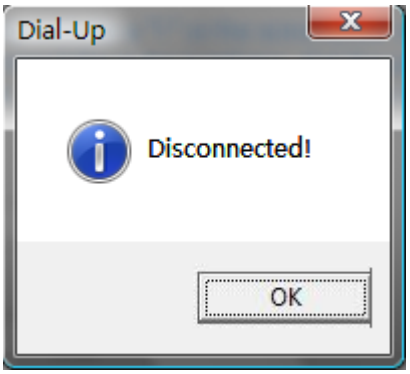
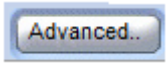


Figure 7.26

Chapter 8 Advanced

First of all, log onto the Sigma Play as the administrator in the way as described in Chapter 1. After you have opened the software, first confirm communication with the LED screen in the way as described in Chapter 5. Then switch to System set interface.

Click the button

, and then press Ctrl+Alt+A. You will see the button 

at the lower right corner. See Figure 8.01

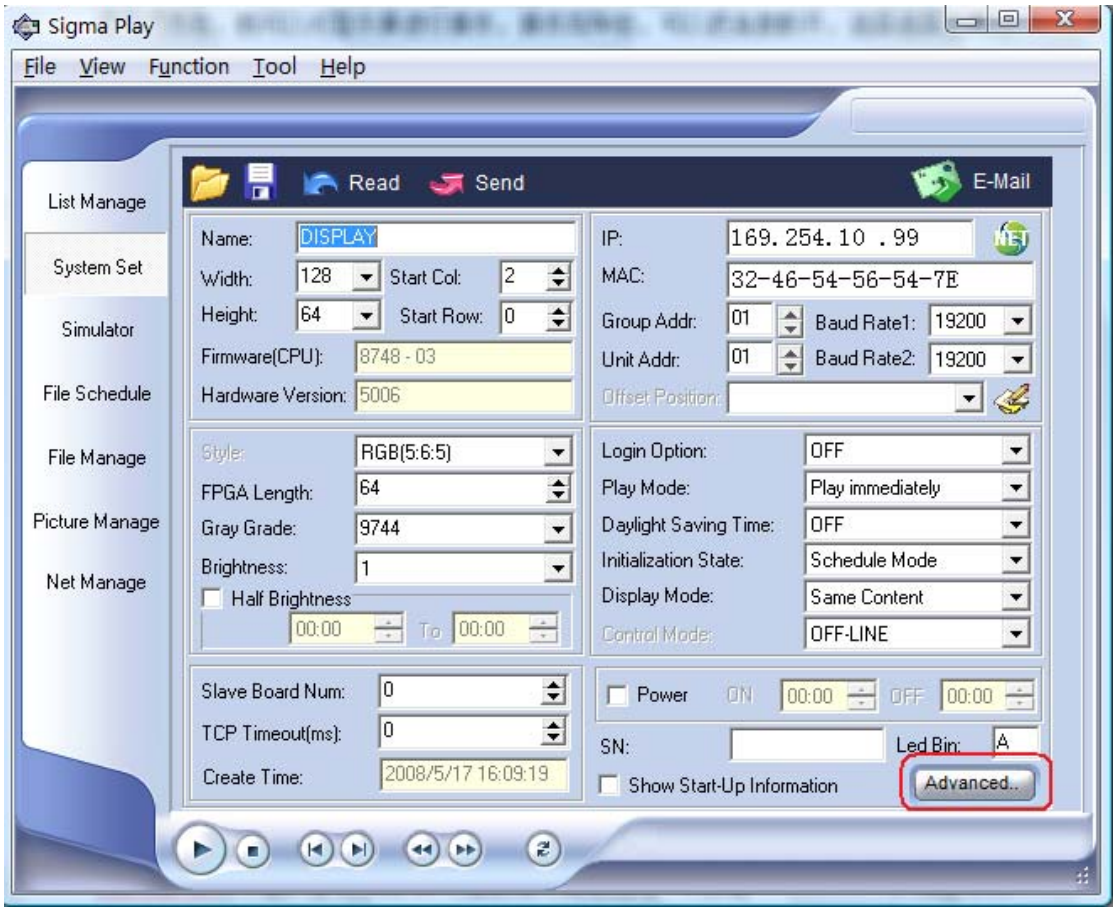
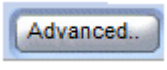


Figure 8.01

Click the button 

, and you will see Figure 8.02；

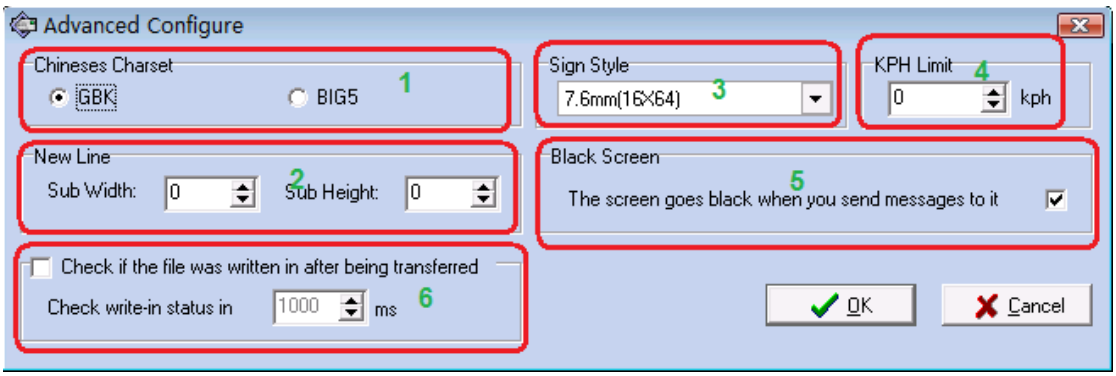
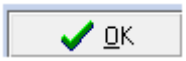


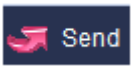
Figure 8.02

1：selecting Chinese fonts:

Sigma 3000 is based on English characters, please using the Chinese Character if insert

the Chinese fonts. Chinese fonts including Sub-simplified Chinese and Traditional Chinese, there are repeated internal code at both characters. So please select one character when you input Chinese fonts

GBK stand for Sub-simplified Chinese, BIG5 stand for Traditional Chinese. If displays the Traditional Chinese on the sign, please select BIG5,then check in 

, and check in 

in the" System set", after that ,the screen will be restarted, and default selection is BIG5. After

that ,can send the Traditional Chinese to the screen. There are three Traditional Chinese character in the Sigma: BIG5A_16、BIG5A_24、BIG5A_32. Also can convert the operating system character with the conversion function in Sigma. Please see the chapter 4.

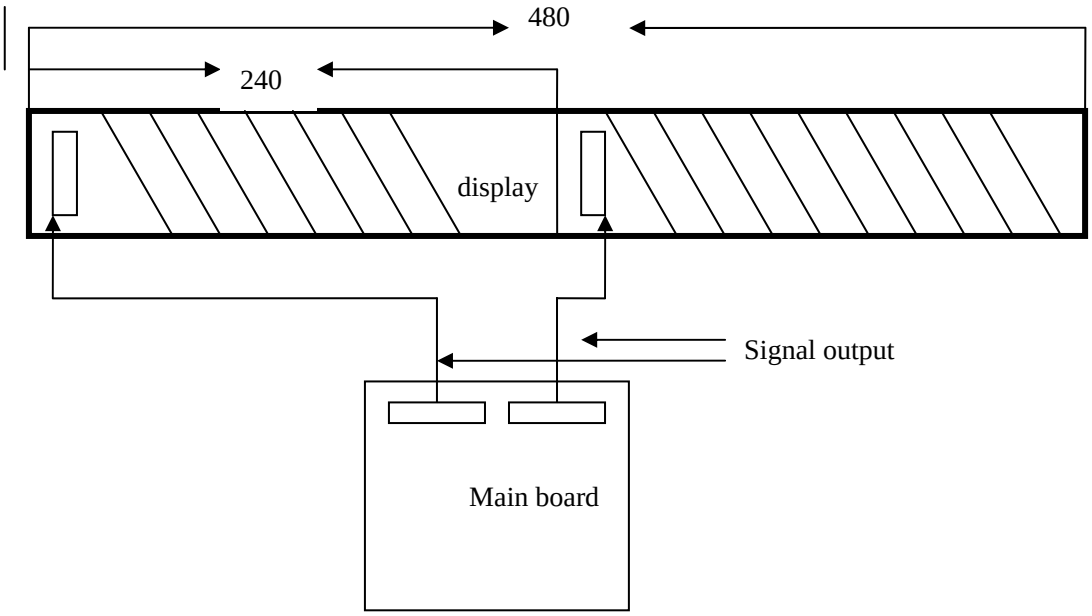
2: New- line setting

when the screen width is bigger than the maximum displays width which the main board is supported ,and when the screen height is smaller than the half of maximum displays height which the main board is supported, it can use the new-line to extend. For example:

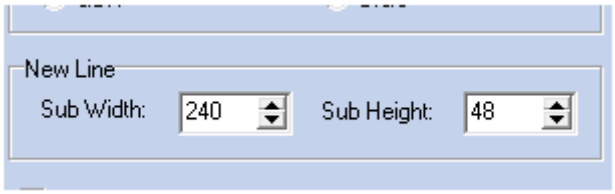
LED Screen ： W:H= 480：48

Main board ; the maximum supported to the LED screen W:H=256:96

connection：



Software sep up：



Then check in

in the “System set”

3. Choose the type of the driver board

The size of the driver board is differernt from its pitch. For example 10mm (16x16) means the display module is with the pitch of 10mm, which compose 16x16 dots

4. Use radar to set the speed limit

When the LED display is connected to the radar equipment, users can user this setting to set the highest speed limit of the road .

5. Set black screen when sending the message

Users can set if the LED display would go black or not when sending the message file.

6. Users can check if the fiels is succefully sent and the sending time of the file.

Chapter 9 Items for Your Attention

1. When you want to use Sigma software to send a file to the sign, please make sure the sign is in Schedule status (display status). If the sign is in remote control status (you can see remote control list), please press “program” key in remote to switch to Schedule status from remote control status; if the sign is in shut down status, please set the sign back to schedule status by press “ESC” button and then “Shift +F1” buttons.; Figure 9.01

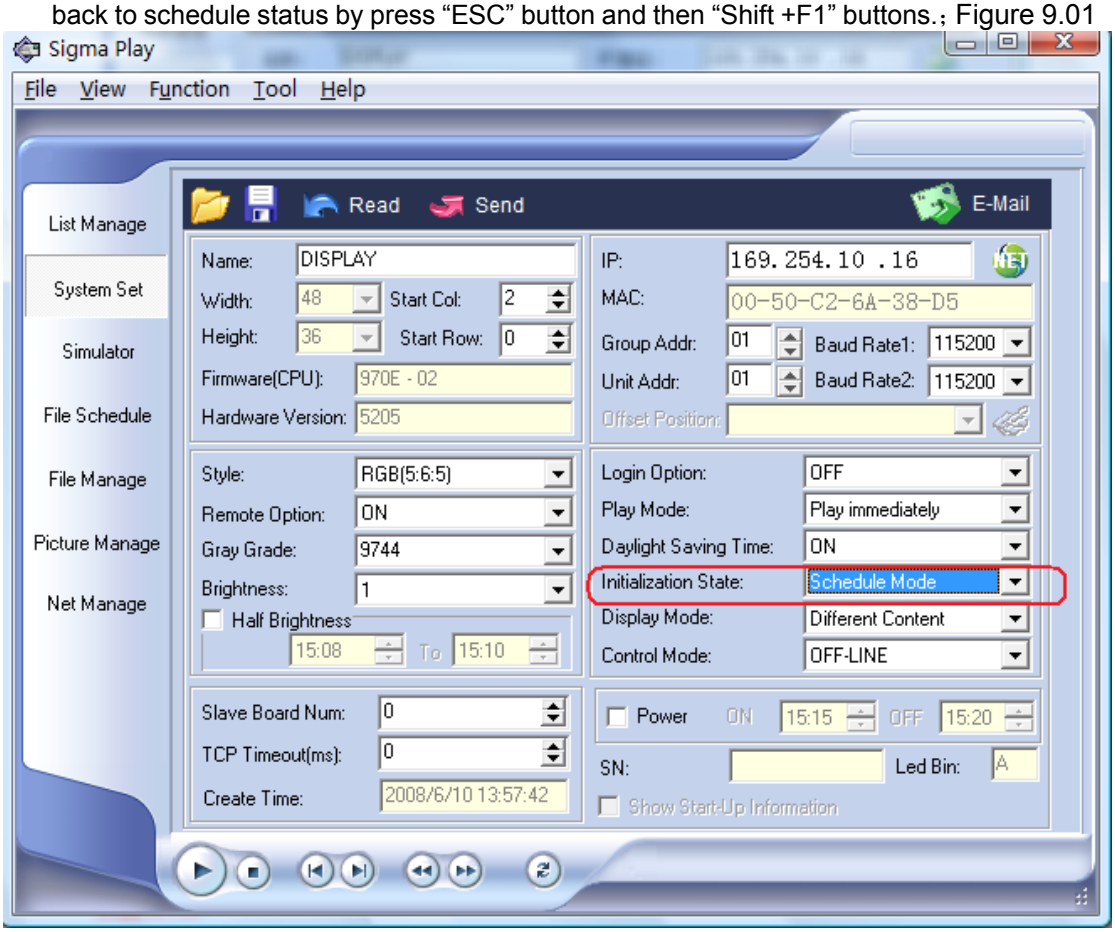


Figure 9.01

2. If you use remote to change the content of file “B” which was received originally from Sigma software before, when you use Sigma software to send file “B” to LED sign, please change the file name or change the display content and then send to the LED sign.

Otherwise, the LED sign will not display this file content even you send it to the sign successfully.

3. Some LED screens are built with the CPU board QS5202. In such a case, you can use Sigma 4.10 to set single-side or double-side mode.See Figure 9.02

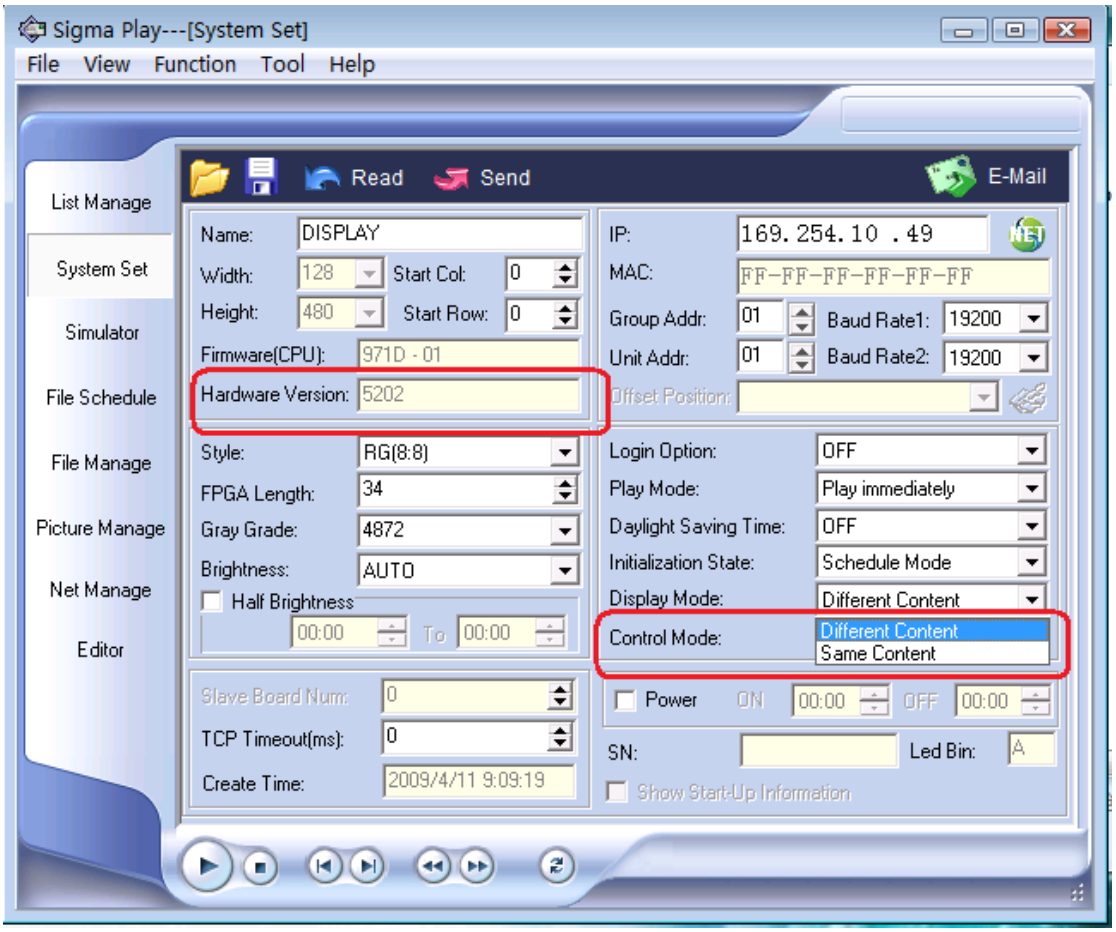


Figure 9.02